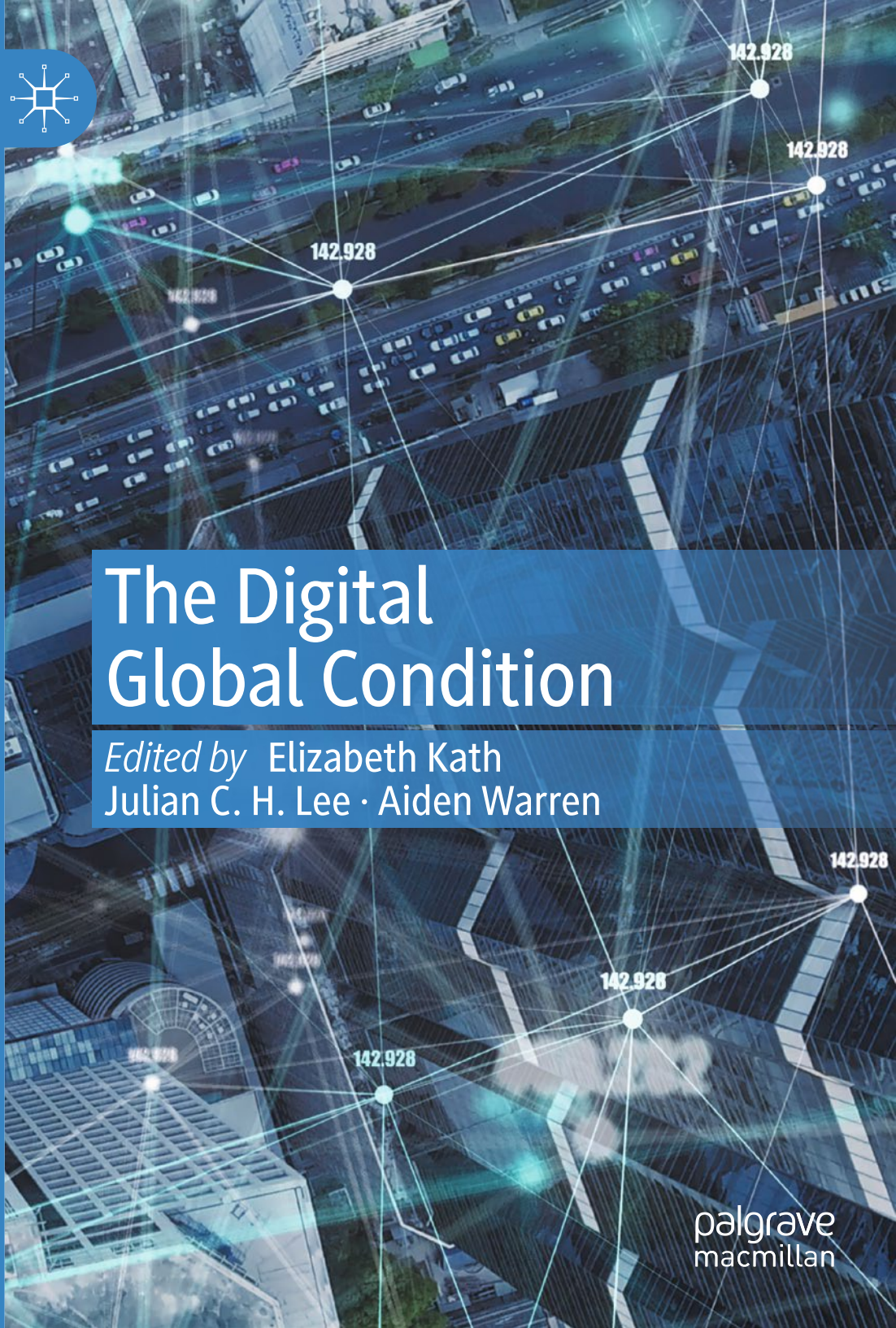

The Digital Global Condition

Edited by Elizabeth Kath
Julian C. H. Lee · Aiden Warren

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The contributors to this volume also wish to acknowledge the ongoing institutional and collegial support that we have received throughout the creation of this volume. This volume features chapters from colleagues who are part of the Global and Language Studies discipline area and who are part of the Social and Global Studies Centre. Both this discipline area and the Centre are themselves part of the School of Global, Urban and Social Studies, which in turn is part of the College of Design and Social Context.

The ethos in our College, School, Centre, and discipline area is inherently interdisciplinary and supportive of explorations of key social and global issues and phenomena via various methods and collaborations. This volume stems from a recognition of the fundamental impacts that digital technology is having in every facet of individual life and society, and connects it with a history of Global Studies in RMIT University. As

described in Chap. 1, Global Studies is an interdisciplinary field that seeks to constructively and critically understand contemporary phenomena within a wide, global context, but also with a view to the practical utility or applied nature of those insights. While global in scope and perspective, the connection of issues to place remains important, as comes through in the chapters that follow.

This volume was conceptualised in 2020 and completed during the SARS-CoV-2 pandemic. The difficult circumstances during the pandemic do not need outlining here; however, we do wish to express our gratitude to those directly involved in this project for their various contributions and commitment to it. Reviewing and responding to reviews of scholarly work is time consuming but important, and we are grateful to the contributors of chapters to this volume for the alacrity and thoroughness of their responses and further work on their chapters in view of these reviews, and we are of course grateful to those who provided reviews and constructive criticism on chapters.

All the interactions leading to this volume were, as it happened, digital in nature. The circumstances of the pandemic have naturally foregrounded the digital as a means of interacting and being with each other. This, together with the scholarly atmosphere that has made this volume possible, brings to our attention some key issues in relation to the impact of the digital on our contemporary global condition, many of which this volume addresses. We thus wish to acknowledge our colleagues and the collegial atmosphere in which this volume came into being. We also wish to thank Palgrave Macmillan and our commissioning editor Marion Duval for their interest in and support in the publication of this volume. The atmosphere in which this volume was created has been contributed to by thousands of acts of support and generosity at both individual and institutional levels. Although many of these acts go unnoticed by many, we are grateful for them all and wish to acknowledge them for their importance.

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1

The Digital Global Condition

Elizabeth Kath, Julian C. H. Lee, and Aiden Warren

Introduction

Despite much talk about digital technology fostering isolation and anomie, the global pandemic that began in 2020 is a testament to the fact of how fundamentally we are connected, not just in metaphorical ways but in spatial and physical ways. While computer viruses replicate instantly, immaterially and with seeming disregard for distance, SARS-CoV-2 has seemingly achieved much the same, despite being a very material entity.

While many people remain disconnected from access to electricity and technology, digital technology is undoubtedly having a defining global impact. Algorithms impact us in ways we barely perceive and which often remain opaque; stock market bots create instantaneous stock and commodity bubbles and busts; our emotions can soar or dive in response to

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the thumb movements of a person typing from miles away. While not everyone in the world is impacted in the same way and to the same extent by globalization and the global impacts of the digital, globalization 'exists as a partial condition', writes Henrietta Moore, and '[i]t is one of the paradoxes of globalization that it is not global' (2011, p. 3)

Nevertheless, we inhabit an increasingly digital world, with digital technology and the internet profoundly transforming global social relations, and challenging among other things states and the notion of sovereignty (Reich et al., 2014, p. 592). Many assumptions are made about the digital literacy and savviness of 'digital natives'; however, it may be that while we witness amazing feats of digital adeptness, it is also clear that governments, societies and individuals, whether in their everyday lives or in moments of humanitarian and political crisis, struggle to harness the benefits of globalized digital technology, and struggle to reign in the diverse problems and ills that digital technology can cause, intentionally or otherwise, both at level of the lives of individuals and at global and geopolitical scales.

The authors in this volume approach the question of our digital global condition in the context of our association with RMIT University, which has been recognized as a pioneer in the study of globalization, where a 'trailblazing global studies program' was established, and with 'talented globalization scholars who would put their new university at the forefront of what would soon to be known as "global studies"' (Steger & Wahlrab, 2017, pp. 41–43). Since that establishment towards the end of the twentieth century, global studies at RMIT has continued to contribute to the study and agenda of the study of globalization and diverse ways and through many significant publications (e.g. Battersby & Siracusa, 2009; Battersby & Roy, 2017; Kath, 2016; Mulligan & Nadarajah, 2012; Warren & Grenfell, 2017; James, 2006; Grenfell & James, 2009; Peeters et al., 2013; Harris & Goldsmith, 2011; Siracusa & Warren, 2016; Bergantz, 2021).

Among the agenda-setting global studies publications to come out of RMIT University was the *SAGE Handbook of Globalization* edited by Manfred Steger et al. (2014). The two-volume publication comprehensively explores diverse aspects of the study of globalization, and the chapters of those volumes simultaneously demonstrate the global network of

scholars that are linked to RMIT, and also the many RMIT scholars whose theoretical and research agendas are linked with the study of globalization. One of the features of global studies at RMIT is the way insights into globalization are gained by tacking between different scales of perspective. In his chapter 'Globalization: An Agenda', former Associate Dean of Global and Language Studies at RMIT, Paul Battersby, observes that, 'Globalization is at once an accumulation of transnational flows extended across the globe and at the same time an intensely personal practice' (Battersby, 2014a, p. 1).

Although, as Battersby has noted, it is the case that 'Globalization is all too often commonly perceived as an economic phenomenon distinguished by the operations of transnational corporations, global financial markets, global communications and trade' (Battersby, 2014b), some scholars at RMIT have especially sought to use the personal, subjective experience of globalization as a means to explore wider issues in global studies. This is particularly apparent in the volume *Narratives of Globalization: Reflections on the Human Condition*, which was edited by Julian C. H. Lee (2016) and can be considered as a forerunner to the present volume. The chapters in that volume were all authored by colleagues at RMIT University and had as an objective to 'think about *how* we talk about globalization as much as *what* we have to say about it' (Lee, 2016, p. 2). Thus, the chapters 'explore various aspects of globalization in ways that are grounded in the direct experiences of the authors themselves as launching points into their enquiries' (c.). In a similar vein is *Monsters of Modernity: Global Icons for our Critical Condition* (Lee et al., 2019), which Lee co-authored with RMIT colleagues. In *Monsters*, the co-authors reflect their relationships with various monsters including vampires, bunyips and Godzilla, to explore various themes in global studies, including neoliberalism, the environment and holism. And there the subjective approach was innovated with, among other things, an authorial concept described as the 'third person personal', which seeks to facilitate subjective authorship in a multi-author context, and which has been since replicated in subsequent publications (e.g. Bell et al., 2020; Lee et al., 2023).

This approach aligns with the views of Eve Darian-Smith and Philip McCarty who, in their book *The Global Turn: Theories, Research Designs,*

and Methods for Global Studies (2016), note that 'it is not simply a matter of spatial scale or geopolitical reach that makes any issue or process global'. They affirm that, 'This means that the global is found not only in the macro processes but also in the full range of human activities' (2016, p. 4). This wide and inclusive lens lends itself to the exploration of issues that traverse both national boundaries, but also pervasive issues, of which the digital is a foremost contemporary one, which as we will explore in this chapter has implications at the levels of global geopolitics as well as the individual experience of the self and world.

Digital Challenges and the Pervasive Impact on Global Affairs

It is evident that the advent of emerging technologies plays a pervasive role across many aspects of daily life, including in the manufacture of goods and services, in global navigation systems, in user-interface software and in self-driving vehicles (to name a few) (University of Waikato, 2018; Steff et al., 2020). In the context of war, the abstraction of violence and global security broadly, devices such as uninhabited aerial vehicles (UAVs) are being used extensively in counter-terrorist operations, while lethal autonomous weapons systems (LAWS) continue to pose ethical and reliability questions about the use (and potential for misuse) of military power. Of course, the compounding aspects deriving from cybersecurity concerns, artificial intelligence (AI), deep fakes, blockchain and the transition from 4G to 5G (and 6G), all have the capacity to engender multiple complexities and disruptions across the state, non-state, global governance and security domains. In aggregate, these technologies have potentially transformative implications for the international balance of power, alliances and security organizations, how governments control information, how international actors compete militarily and economically, and how they wage war. Other emerging technologies are also developing, including advanced manufacturing techniques (3D printing), nanotechnology (such as miniaturization of military technology), bioengineering (such as biological weapons agents and human–machine

symbiosis), quantum computing (such as the potential decryption of classical information systems) and digitization technologies (such as military tools, spyware and applications to manage 'big data'). Further, it is evident that the most powerful state actors and multinational corporations are investing extensively in the range of such emerging disruptive technologies (University of Waikato, 2018; Steff et al., 2020). We are also quickly discovering that once technological capabilities exist, it is difficult to control or predict who will have access to them, or the intentions and purposes for which they will be used (see, e.g., Greene, 2022). While the dangers and security complications of many new weapons and devices are not yet fully realized, policymakers, state leaders, NGOs, civil society and individuals will hopefully be compelled to address the threats presented by advanced weapons technologies and formulate international provisions to regulate or mitigate their use.

At a global and geopolitical level, the power and pace of modern technologies call for new approaches to preventing a catastrophic conflict or mitigating a devastating miscalculation. While some efforts have been undertaken in the direction of regulating the usage and application of such technologies, coherency and agreement on pathways forward across the domains of states, non-state actors, global governance, and security have been hard to attain (Klare, 2018). In the current era of omnipresent, near-instant communication today's rapid technological changes have greatly shortened the time for governmental consideration, decision and action, even as these changes hasten the complexity and difficulty of new problems. Not surprisingly, the tumultuous reaction to the COVID-19 pandemic has tested the confidence of even the most fervent global optimists. Many countries, including some of the world's most powerful, turned inward, initially implementing travel bans, executing export controls, stockpiling or controlling information, and sidelining the World Health Organization and other multilateral institutions. Aside from deeply exposing the architecture and governance of the liberal order and the international community as fragile, faltering global cooperation has left the security dimensions of emerging technologies either on pause or incompletely addressed via makeshift and insubstantial avenues (Patrick, 2020).

It would be remiss not to mention the extent to which the fifth generation of mobile network technologies, known as '5G'—promising superior speed, security and capacity—underlies the global economy and supports the pillars for the next generation of digital technologies. As such, it is hardly surprising that there is an intense global race among corporations and states for 5G positioning, as it will decide the route the internet will take and where states will encounter new risks and greater susceptibilities. More specifically, who creates and controls the 5G technological space will markedly redefine an increasingly competitive technological world, in which choices made today will have national security and economic performance ramifications in the short to distant future. While this is a contest amongst corporations (and groupings of corporations), it is also a battle between market-based and state-directed policymaking and strategy. In the great power political domain, the United States remains inextricably linked to the former, China to the latter and Europe falls somewhere 'hedgingly' in between. As the recent experience of the United Kingdom has illustrated, it will take years to untangle internet infrastructure (Kelion, 2020). Meanwhile, vendors are already establishing tech coalitions to begin research on 6G, indicating that the polarization of internet architecture will continue into the 2030s and beyond (Yang, 2021).

Fully comprehending the implications of the emerging technologies for warfare and arms control and formulating efficient processes for their management is a massive mission that will entail the ongoing efforts of many analysts and policymakers around the globe. In more frank terms, the need to provide guardrails for disruptive emerging technologies and their war-fighting and arms control applications as they transition into military systems presents urgent challenges (Klare, 2018). As the weaponization of the critical technologies continues, it will be important to reconsider how current protocols and models may be utilized as the foundation for additional methods envisioned to regulate entirely novel types of armaments. Addressing the weaponization of AI, for example, will prove extraordinarily complicated because regulating something as

fundamentally insubstantial as algorithms will resist the exact classification and stockpile oversight elements of most current control procedures. Many of the other emerging technologies too will traverse the gap between conventional and nuclear armaments and will present an entirely different type of regulatory difficulty. Responding to these challenges will be complex especially due to the insecurities that have arisen since the outbreak of the coronavirus pandemic and the relative disruption in multilateral cooperation (Klare, 2018).

Thus, *The Digital Global Condition* considers some of these themes in relation to the role that emerging disruptive technologies play across the intersections of global politics, power, commerce, security and the individual. While recent technological developments, such as artificial intelligence (AI), robotics, automation and cyber, have the potential to transform international relations in positive ways, as explored by Warren in his chapter on technology as a 'threat multiplier', they also pose challenges to peace, security and stability, while raising new ethical, legal and political questions about the use of power and the role of humans in this context. To be sure, what is evident in the digitization space in the context of global affairs is that emerging technologies are having an epochal transformative impact on a variety of referent objects and the broader human condition—stretching the conception of international affairs and redefining and challenging traditional roles. Additionally, as explored in Warren and Bartley's chapter on the 'digital paradox', the intersections of power, the state and commerce have significantly amplified complications, evident across the domain of 5G competition and tensions pertaining to TikTok, Google and Huawei (to name a few). Lastly, on the human (security) level, while great connections and cultural exchanges have yielded marked positives in the digital age, so too has the preponderant darker underside—encompassing social media (dis)information distortion, MNCs hoarding of individual data (personal sovereignty) and the deterioration in social relationships (dislocation and anomie)—come to the fore in every facet of global affairs.

Our Long Digital Tail

The profundity of the impact of digital technology on our world lies not only in the sphere of global politics and security, however. Far-reaching social and cultural reconfigurations are occurring that affect not only aspects of our everyday lives, but also often impact the majority of many people's waking moments. These impacts have led the long-serving BBC business journalist Peter Day to write that, 'I have come to think that our world as being turned upside down' (Day, 2013a). Like others (e.g. Johnson, 2014; Harford 2017), Day acknowledges the world-changing impact of previous technologies; in particular, Day highlights the printing presses which radically changed the relationships that people had with reading and writing, as well as with authority and religion. 'Effectively, printing changed the relationship between men and women and their universe' (ibid.)—it expanded human capabilities, the preservation and communication of knowledge and opinion, and fundamentally altered social and political hierarchies (see also Eisenstein, 1980).

Day believes that another transformation of this magnitude is underway, as a consequence of digital technologies. One key insight into an aspect of how social relations are being upheaved can be found in the story of the failure of one of the first successful—and now extinct—web search engine, Excite.

As a business journalist, Day had interviewed Joes Kraus, a co-founder of Excite. Excite failed as Google rose to dominance. Excite had sought 'all its revenue from the top 10 companies in America, as media businesses had been doing for decades'. Google by contrast, 'and this is the upside-down revolution' writes Day, had 'structured its business around attracting the top million, or ten million, advertisers in the US' (ibid.). Kraus then shared an insight with Day that the latter believes to be 'one of the keys to understanding how different life is now compared to the world in which I have spent most of my life'; it was, in Day's view, 'one of the most important statements we have ever broadcast'. Kraus observed that

> the average query on Excite was asked maybe five times a day, but that represented—those queries that were asked five times a day—represented 97 percent of our traffic. It had a long tail. The reason Excite went out of business? We couldn't figure out how to make money from that long tail—from 97 percent of our traffic. Google figured out how to do that. Because they realised that, for them, it was a marketplace for small advertisers to reach small markets. The world of the internet is about the long tail. It is about millions of markets of dozens, as opposed to the traditional world, which is dozens of markets of millions. (Day, 2013b)

The fact of this long tail, the insight that 'The 20th Century was about dozens of markets of millions of consumers. The 21st Century is about millions of markets of dozens of consumers' was, for Day enormous. This change which has been created and enabled by digital technology 'really does turn the conventional, mass production, 20th Century business world, upside down' (ibid.).

In exploring how the long tail has this impact on business, Brynjolfsson et al., writing in 2006, observed that compared to brick-and-mortar retailers, Internet retailers 'can aggregate demand on a national or even global scale. With the potential Internet market approaching a billion consumers, even if you have one-in-a million tastes, there are still over a thousand like-minded consumers who share your niche tastes' (2006, p. 3). And here we can observe the synergy between the digital and the global together; digital globalization is able to connect and bring together consumers with low-frequency interests which, at a global scale, still constitute a viable (and potentially profitable) market.

In the business context, the long tail describes 'the phenomenon by which niche products gain a significant share of demand for all products, which then consequently decreases the importance of blockbuster products' (Hinz et al., 2011, p. 44). What the long tail means for business is debated (e.g. Elberse, 2008; Peltier & Moreau, 2012; Hinz et al., 2011). Elberse (2008) presents a sceptical assessment of the long tail; the evidence she draws on is from internet music and video services, and (at the time of her writing in 2008) she found that 'an ever smaller set of top titles continues to account for a large chunk of the overall demand for music', and that for video 'success is concentrated in ever fewer

best-selling titles at the head of the distribution curve' (as opposed to the tail of the curve; italics added; Elberse, 2008, p. 3). The attention accumulates around a small number of very popular titles or products is known as the superstar effect.

However, despite Elberse finding more concentration in blockbuster titles and artists, she found that there also is a growing market in the long tail. Although there were more products that sold very rarely or never, there were other products in the long tail that the digital platforms enabled to sell more of, thus, there is indeed a 'growing volume of business we see in the tail' (2008, p. 4). Similarly, Peltier and Moreau have investigated the popularity of superstar titles versus titles in the long tail in the context of the market for French books and found that the internet has had an enduring effect. They found that 'the market share of low-seller books (belonging to the 'bottom 80%') is higher online than offline, with strongest effect for very low-seller books ('the bottom 40%')' (2012, p. 714).

The analysis that Elberse gives her findings relating to both concentration at the 'head' and business growth in the 'tail', and who the consumers are in this segment, is revealing. This long tail observed in business contexts is as relevant to society more broadly. Digital technologies of the twenty-first century allow engagement with the world in a way that is disconnected from the face to face, bringing a profound reconstitution of social relations (James, 1996; James & Kath, 2014). In effect, our social presence can now exist in places far away from our physical presence. Everything is there, but our body and mind are here (Heeter, 2000, p. 6). The new, disembodied forms of human engagement, mediated through technology, affect the terms on which we ethically relate to others, what we are capable of, the way we are perceived and the communities we become members of.

The internet, it has been often observed, enables those with infrequently held views to readily find others who hold similar views, and digital platforms and search engines facilitate the location of similar others in this social and political long tail. A local social or political cause or development can now spark a global movement in real time (e.g. Lee, 2014). As early as the 1990s we saw local indigenous movements, such as the Zapatistas in the Southern Mexican state of Chiapas,

harnessing the internet to gain global attention and support, and leveraging that support to challenge and negotiate with the nation-state (Cleaver, 1998; Martinez-Torres, 2001). Notwithstanding the global nature of colonialism, and the common postcolonial problems facing indigenous groups around the world, local indigenous groups have struggled in geographically and institutionally bounded marginalization against modern states. Following decades of slow struggles to unite indigenous peoples across the world, the internet has dramatically facilitated linkages between indigenous leaders, communities, governments, organizations and private enterprises at all levels from the local to the global. This has increased the possibilities for advocacy, political and material support, and global conversation about indigenous rights, which Pollock et al. explore in this volume (see also Carlson & Berglund, 2021). The same can be said for many other social and political movements of the twenty-first century.

The ability to find like-minded others online can ease human suffering for those affected by social isolation, marginalization or lack of support within their face-to-face/embodied/local context. A parent or carer whose home responsibilities make it hard to socialize outside the house; a teenager struggling with sexual identity in a small conservative town; an elderly person or person with an illness or physical disability who has limited mobility; an enthusiast of a niche sport or hobby or political position who has nobody in their immediate social circle with the same interest; and a person facing a unique condition or circumstance that nobody at home seems to understand: all with an internet connection can have friends, allies and virtual communities at their fingertips.

A poignant example is that of a young Danish man, Mats Steen, who was also known in his online gaming communities as 'Lord Ibelin Redmoore' or sometimes 'Jerome Walker', a warrior in World of Warcraft, a popular online game that connects people from around the world to play together on a single platform. Participants can define their identity in the game, including their physical characteristics. For more than 12 years, Mats was a member of 'Starlight'—a group with about 30 members. Since the friendships between Starlight group members happened online, for years Mats' group members were not aware that he had Duchenne muscular dystrophy (DMD), a rare disorder causing muscle

degeneration, or that he lived in a wheelchair, barely able to leave the house (Schaubert, 2019).

At the age of 25, in 2014, Mats Steen died from his condition. Not long before his death, he started writing blog about his experiences in World of Warcraft. It was there that he revealed his material body's condition to some online players who had become closer to him. 'There my handicap doesn't matter, my chains are broken, and I can be whoever I want to be. In there I feel normal', he wrote. It was only after Mats died that his parents became fully aware of the extent of his online life, when they began to receive a stream of emails from Mats' online friends, expressing their grief and condolences. While Mats had been housebound for years and therefore barely knew anybody in his local town in Denmark, his online Warcraft friends pooled money to travel from around Europe to his funeral to pay homage. Other members of his team all around Europe held a candlelight vigil for him, and the Starlight group has continued to hold a memorial service for Mats every year since. During his life, Mats was able to escape his physical limitations by means of virtual embodiment. 'It's not a screen', he wrote. 'It's a gateway to wherever your heart desires' (Schaubert, 2019).

This ease of virtual connection to others can provide social comfort, escape and support on the one hand, but also creates new problems. As digital gadgets become cheaper to produce and buy and are ubiquitously owned, it is arguable that their novelty is wearing thin, and their socially alienating or even anti-social effects (Miller, 2012) are becoming more palpable. Despite technologies that make us more 'connected' than ever before, Western industrialized countries are experiencing an epidemic in loneliness and social isolation (Hampton et al., 2009; Kim et al., 2009; Singh, 2019), which, like any other contemporary human problem, is perceived as solvable through more sophisticated technologies such as sexbots for the lonely, or robots as caretakers for the elderly (Foster, 2018). As Kath and Buzato explore in this volume, technologies that try to recreate the face to face instead tend to produce more layers of mediation. Indeed, the advent of the World Wide Web created new digital worlds consisting of networked blogs, websites, chatrooms and forums for every topic under the sun (or in the shadows). A further unintended side effect of such digital communities is that they have enabled

individuals with extreme beliefs to find others to validate their grievances and encourage them to action. As discussed in Zimmerman's chapter, a notable example of this is the phenomenon known as the "Manosphere", an anti-women digital world that foments extreme misogyny, dehumanizing women and, at its most extreme levels, advocating for violence against all things feminist.

Additionally, many industries that previously required constant face-to-face interaction and physical movement now require workers to spend long hours daily in front of screens, resulting in new occupational health epidemics. The human body is not designed to sit without moving all day, and our new work lives in front of screens may be harming us, with long periods of inactivity associated with many chronic diseases (Hamilton et al., 2007; Wittink et al., 2011). In many industries, including the law as explored by Farrell and Sheed-Finck in this volume, the preoccupation is with whether the human being will be dispensed of altogether and replaced with AI (Higgs, 2020, pp. 21–52). Will the future be a world in which the most crucial decisions affecting our lives—health care decisions, courtroom decisions, visa outcomes, aged care and so on—are decided by machines and what are the ethical implications of this? And should educational institutions be evolving to best serve and prepare students for a digital world? Questions such as this are already being posed and explored by researchers and authors, including those in this volume, such as the chapter by Sherman Young and Chris Ziguras in relation to universities.

Another much-discussed concern is the creation of echo chambers, that are facilitated by the digital realm's ability to gather those of like-minded opinions. Echo chambers may be defined as 'environments in which the opinion, political leaning, or belief of users about a topic gets reinforced due to repeated interactions with peers or sources having similar tendencies and attitudes' (Cinelli et al., 2021, p. 1). The echo chamber may result in views being given affirmation by others who hold them, despite the fact that such views may be infrequently held, fringe or have the overwhelming weight of evidence stacked against them. As Sarah Ichioka and Michael Pawlyn observe, 'our innate cognitive biases are influenced by algorithms that feed us content that amplifies, rather than challenges, our existing views' (2021, p. 24). Although the dangers of the

echo chamber have been widely commented on (e.g. Törnberg, 2018; Avnur, 2020; Nguyen, 2020), it is worth noting that for the purposes of the discussion here, the goodness or otherwise of the ease with which like-minded company can find each other is not a focus. That said, although we may naturally talk about the kinds of people and individuals who inhabit the long tail, Elberse's findings may lead us to a different way of looking at the phenomenon.

Elberse is concerned about the relevance of the long tail for businesses, and notes that 'It's vital for marketers to understand who is responsible for the growing volume of business we see in the tail. Is just a small group of fanatics driving the demand for obscure products?' (Elberse, 2008, p. 4). She goes on to ask, 'Is most of the business in the long tail being generated by a bunch of iconoclasts determined to march to different drummers? The answer is a definite no. My results show that a large number of customers occasionally select obscure offerings', while at the same time 'consumers of the most obscure content are also buying the hits' (p. 5).

What this insight highlights is that our natural conceptualization of *people* or *individuals* being fringe or dwellers in the long tail, as opposed to the mainstream, is misguided. We should not be thinking of some people as dwelling in the long tail, while other people dwell in the mainstream. Instead, we all inhabit the mainstream *and* the long tail, at least occasionally.

And similarly local and political causes also gain attention and 'buy in' in the digital world, arguably along similar lines as commercial markets, with the most visible global movements such as 'Black Lives Matter' and 'Me Too' at the 'head', and a long tail of causes with a smaller following. Those of us who know about and support BLM or Me Too likely also identify with a range of other more niche alliances.

This is a profound reconfiguration of the way we think about society and culture, particularly our understanding of communities. The twenty-first-century human being is no longer bound to an embodied community, and as such becomes a multi-faceted person in new ways. Hypothetically, each of our many facets—whether political beliefs, life circumstances, physical characteristics, interests or skills—can be linked to corresponding globally dispersed communities. Our community is no

longer contained to our household and neighbourhood, but encompasses a long tail of communities, embodied and virtual, reflecting our various human dimensions.

The realization that we all have our own long tail is a vital insight for the study of people and society per se, though as Bruno and Rodríguez point out, it has particular relevance in the domain of the digital, because, 'A culture of dividuality is present in our technically mediated practices, and is ever more present in the way digital culture corporations, and occasionally the state, deal with our actions and behaviors' (2021, p. 2). The notions of dividual and dividuality have been posed as contrasts to common ways of seeing people as individuals—singular uniform entities. Jo Helle-Valle has described how, although it is understandable that we 'construct oneself as an individual', it has 'also become an ideological project—individualism' (2010, p. 203). Helle-Valle, however, points out that people are in a real sense 'different persons in different settings', which 'clashes with our conventional terminology and thinking about individuals in the social sciences'. Helle-Valle notes that '"Individual" and "identity" are concepts that are widely used in research, but that 'the ideological connotations of the terms unintentionally become part of our analysis and therefore affect our academic results' (ibid.). Thus, Helle-Valle 'suggest[s] supplementing the term "individual" with "dividual" so that we can analytically conceive persons as in/dividuals' (ibid.).

While the notion of our dividuality is not limited to the digital domain—though it has been argued to be especially relevant to it (Bruno & Rodríguez, 2021; Hopkins, 2019)—our participation in the long tail is dependent on connecting with those ideas, products and others. In their study of sales of video blockbusters versus niche products, Hinz et al. conclude by importantly noting 'the strong influence of search technologies on the demand distribution' (Hinz et al., 2011, p. 67). Whereas filters can shift demand to niche products, recommendation-based systems will shift attention to blockbusters. 'Whether search technologies favor niche or blockbuster products, demand might be reversed by minor adjustments to search technology' (ibid.). While we pay little attention to the impact of algorithms in our daily use of the internet, they can, as is explored later in the chapter by Lee et al., be profoundly impactful.

In the chapters that follow, the authors take on an array of key issues facing global society with respect to the impacts of digital technology. Although it is impossible for any volume to address every issue in a field as vast as the digital, among the important insights that come through in this volume, we believe, is that the foremost challenges facing humanity are by no means ones that can be addressed simply with science or technology; they will need to be addressed in concert with nuanced and well-informed contributions from the social sciences and humanities, a point emphasized by the Vice-Chancellor of the Royal Melbourne Institute of Technology (RMIT), Alec Cameron, who holds a PhD in robotics. He noted in an internal RMIT event in 2022 that in addition to thinking about the impact of technology, 'We need to also understand there's a social context in which technology gets adopted'. He went to observe that 'I draw on my experience in robotics and say look, there are lots of things we could do with robotics where the problems are not technical—the problems are social'. We believe that the chapters that follow bear this observation out. Each advances our understanding of an aspect of our digital world, as well as the more general nature of our increasingly digital global condition, and how a considered view of social and political digital phenomena can bring us to a better understanding of complex issues that face us.

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2

The Imagined Latent Zone: How the Myth of Cultural Authenticity Survived the Covid-19 Lockdowns

Elizabeth Kath and Marcelo El Khouri Buzato

Introduction

When we hear talk of 'authentic culture' it usually carries inherent reference to the past (time) and to somewhere else (space/place). Popular references to authentic culture (whether a dish served in a restaurant, or a sequence of movements in a yoga or dance studio) carry the assumption that cultural forms have an origin in a time and place that root it and provide authority and truthfulness, as opposed to spoilage and pretence. The term 'authentic' is often used interchangeably with 'traditional'. A google search for 'authentic food' throws up a list of pages about 'traditional' food (traditional Vietnamese food, traditional Italian food, traditional Nigerian food and so on). Hobsbawm and Ranger (1983) famously observed that many well-known and celebrated traditions are 'invented

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traditions'. That is, some traditions that are popularly imagined as originating in a distant past were more recently invented and even intentionally manufactured. Considering a differentiation between invented traditions and genuine or authentic traditions, others have pointed to a problem with this distinction in that all tradition is constantly being renewed, revised and reinvented (Beiner, 2007; Burke, 1986). A claim to cultural authenticity is a claim to some cultural lineage, to a distant place or to people. Yet more often than not the specific details of that time and place elude us.

We are more likely to see claims to authenticity removed from the imagined source of the authentic. This is especially noticeable when regarding national identity/culture, since nations are imagined communities (see Anderson, 1983). For example, advertisements for 'authentic Italian food' are more likely to appear in Australia or Brazil than in a restaurant in Italy, where the authentic is (problematically as it might be) assumed implicit. And if such claims are spruiked by Italian restaurants in Italy, it would likely be with tourists in mind, who have travelled a distance from another place to seek out the authentic. [The so-called pizza effect is worth mentioning here; that is, the phenomenon through which elements of a local culture are more enthusiastically embraced by people far away, who reimagine and reinvent it and then often reimport to the place of origin (see Bharati 1970)]. Cultural authenticity, it seems, comes into consciousness when we long for it or strive for it from afar. And the authentic seems to become more intriguing and valuable the further away it is located from its purported origin. To value the authentic is to be outside of it or removed from it (temporally, corporeally, geographically). Additionally, temporal and physical distances are relative: they depend on the scale being observed and, also, on what points of the web of relations that constitute such space are deemed central or peripheral. Therefore, we often intermesh the distant (from our own scale of observation) with the exotic, a word meaning 'outside' (the centre) in its Greek origin.

Herein lies a paradox though: on the one hand, cultural authenticity comes into our awareness when we are abstracted from the source of (an alleged) authenticity, or when observed from the outside or as opposed to the centre of observation. On the other hand, if being authentic is being

true, genuine or real (as far as the real connects with materiality or concrete experience), then only that which is present in the moment, in the here and now, embodied in the flesh, is truly authentic. Truly authentic culture is only that which is being lived in real time (see Street, 1991). Authentic culture does not strive to be authentic or require proof of its authenticity; to strive to be authentic tends to negate the authentic by reaching for something other than what is. This is not to say that there can be no conscious awareness of authenticity; the process of abstraction still allows for a double ontology of living in the moment and being aware of it. However, since cultural authenticity only comes into view through abstraction from it, this makes it ephemeral and difficult to consciously define, inhabit or grasp. This goes some way to explain why cultural authenticity is so unsettled and contested: it can be subjectively evaluated but is virtually impossible to objectively verify.

It has been well established in theory (Ortiz, 1940; Hobsbawm & Ranger, 1983; Bhabha, 1994) that all culture is hybrid and ever-changing. Yet references to authenticity abound, as do heated public discussions about topics such as 'cultural appropriation' and 'cultural imposters'. These take place in the context of the twenty-first century, where globalized communication technologies arguably destabilize, disrupt, remix and redistribute culture in ways that we might expect to draw greater attention than ever to its hybridity. Digital engagement has further intensified since 2020 when the frequent lockdown periods during the Covid-19 pandemic forced a mass movement of social and professional interaction, much of it of intercultural nature, into the online medium. The rapid movement of everyday life and work online leads us to consider whether and how the construct of cultural authenticity can survive through a screen.

It is precisely because cultural authenticity is dependent on processes of ideational abstraction that we should be concerned with the role that technologies of virtualization, such as Information and Communication Technologies (ICTs), play in its maintenance. If authenticity is actually an abstraction, it must find abstract ways to support its circulation across spatial and temporal scales. Cultural stereotypes and crystalized forms based on mythical origins of cultural traditions that can be reproduced through material simulacra, and behavioural scripts that can be

performed in other spaces and times, are even easier to turn into animated and simulated forms that suggest embodiment and liveliness on digital screens. Using the right algorithms and data structures, the digital medium can make such stereotypes and scripts instantly 'alive' and globally accessible. We could assume that, by connecting the sites of cultures at low cost and in real time, the online world would bring a conceptual dilution of the myth of cultural authenticity by multiplying the venues of authentic cultural encounters (i.e. concrete encounters with the dynamicity and heterogeneity of cultures). However, we must also consider how technological mediation supports informational reductionism and stereotyped multimedia representations of cultures. This is especially important because, as we will see, media evolves technically in the direction of attempting to make the virtual and the actual indistinguishable from one another. Since this is ultimately an impossible task, it tends to result in ever-multiplying layers of technical and cognitive mediation.

The question of how to make sense of globalized digital technologies in relation to culture is a source of ongoing scholarly discussion. Geoff Sharp and collaborators (Sharp, 1985, 1993; James, 1996, 2014; James & Kath, 2014) speak of 'constitutive abstraction' or levels of social integration, moving from the level of face-to-face relations to object-extended, agency-extended and then the disembodied relations that characterize the twenty-first century but also contain the echoes and imitations of every previous level of integration. Bruno Latour (2005) is critical of levels arguments, but he offers an explanation of how these levels can be integrated in materialistic terms. He argues that technology has a way of stabilizing things and keeping agencies stable, even at a distance. To globalize cultural forms, from that point of view, there must be a stabilizing force—a constant circulation of what he calls 'immutable mobiles', signs that remain formally stable across different material and situational contexts, which includes a certain metrology, informational patterns, scripts, currency exchange rates and, in our view, (cultural) stereotypes. But stereotypes need to be represented and brought to publics through signs and media. Not only are media far from being neutral conveyors of disembodied forms, but also the current "turn to the digital" in intercultural relations should be considered in light of David Bolter's (2000) concept of "remediation". That is, we should look into how new (digital) media

genres and devices, which carry the promise of more authenticity (meaning more 'closeness to the real thing' taking place elsewhere), also add new layers of mediations between (intercultural) interactants. While Latour (2005) and Bolter and Grusin (2000) help us to understand how the circulation of the myth of cultural authenticity could be expanded and enhanced through the integration of local and global by means of disembodied forms and stereotypes going back and forth across specific relational nodes or sites, we find support in Yi-Fu Tuan's (1979) distinction between space and place to reflect on the role of embodiment and "situated" experience in the new spatial configuration that seems to be emerging after the pandemic. Drawing on a combination of these scholars' theoretical frameworks and perspectives, this chapter sets out to consider what experiences of intensified engagement with digital communication technologies might teach us about how digital technologies (1) interfere with the ideology of cultural authenticity, and (2) provide opportunities for attachments to the idea of cultural authenticity to be reinforced or remade.

Cultural Authenticity: Scholarly Critiques Versus Popular Realities

Processes of "acculturation" became the subject of intense interest amongst Anglo-American anthropologists at least from the 1930s onwards as ways of understanding the transformations occurring at the borders between Western modernity and its cultural others (Tlostanova 2012: 9). Within the prevailing functionalist framework, acculturation focused on cultural contact and the resulting transformation of culture as a linear process of disadjusting from one cultural context (deculturation) and adjusting to a new cultural context (acculturation). In his landmark publication, *Cuban Counterpoint: Tobacco and Sugar* (1940), Cuban anthropologist and ethnomusicologist Fernando Ortiz overturned these prevailing linear theories, introducing the concept of transculturation.

The concept of 'transculturation' was a significant intervention in that it acknowledged the mutually influential relationships between cultures,

and the diverse, non-linear and multidirectional processes of cultural identity formation. Culture also became historical, every cultural form (material or otherwise) being tied to countless interactions between diverse cultural elements over countless years. This was an important departure from the prevailing functionalist approach to culture (as in Malinowski, 1922) to an acknowledgement of culture and cultural forms as ephemeral, always unstable and incomplete, always coming into contact with diverse new elements, and constantly transmutating across time and space. Ortiz wrote not only about cultural identities and subjectivities, but also about cultural forms and commodities, material or otherwise.

In social science, more recent theories, such as "hybridity" (Bhabha 1994), "interculturalism" and "invented tradition" (Hobsbawm & Ranger, 1983), have observed culture as constantly evolving, blending and combining diverse elements/forms in the process of being continuously remade. This gives reason for scepticism about the notion of "cultural authenticity" (see also Lee & Ferrarese, 2016), which rests on assumptions that cultures and cultural forms have innate purity and are traceable to a bedrock or origin. In short, if culture and cultural practices are by their very nature always hybrid, reconfiguring and transmuting, how can there be 'authentic' culture? Cultural authenticity, though, as an ideology remains popular across the world:

> Authenticity is much sought after; being described as inauthentic is an insult or an embarrassment. Being authentic suggests that a given behaviour or performance is reflective of a 'trueness' or 'genuineness' to one's identity. From a social science perspective there is sometimes scepticism expressed about the historical faithfulness of purported behaviours…. However, what can be overlooked in such criticisms is an array of sociological and existential dynamics that are at play when authenticity is striven for. (Lee & Ferrarese, 2016)

Examples of authenticity as popular currency are everywhere. Restaurants and supermarket shelves advertise "authentic international foods" (Lee & Ferrarese, 2016, p. 9); tourism industry sales pitches promise "authentic experiences" (see Rickly & Viden, 2018; Farrell, 2016), online forums and social media comment threads of yoga, music and

dance communities abound with often emotionally charged debates about what is authentic and what is not, and who has the right to decide. Objectively, demands for cultural 'purity' or 'authenticity' are conceptually fallible; subjectively, there is widespread attachment to the idea that cultural forms are discrete entities, with clear boundaries, static forms and single origins.

These tensions exist in the context of the twenty-first century, where globalized communication technologies now allow the constant "real time" circulation of cultural forms around the world, which global studies scholars have argued collapse time and space (Steger & Roy, 2010), and arguably accelerate and make more obvious the hybridization of culture. Digital engagement has rapidly intensified since 2020 when lockdown periods and social distancing measures during the Covid-19 pandemic forced a mass movement of life and work into the online medium. For millions around the world, lockdown periods meant a collapsing of most face-to-face social interaction and an almost complete reliance on digital forms of interaction. As such, this was a period of global cultural disruption, arguably one that has accelerated social engagement mediated by digital technology.

To review and reframe the notion of cultural authenticity, particularly in the twenty-first-century context, is important for various reasons. First, because for cultures outside the mainstream, while a strong sense of cultural identity and cultural belonging remain an important political asset in the struggle for social inclusion, the idea that a culture has an essence tied to crystalized symbols, values, technologies, languages and so on also supports retrogressive claims to 'cultural loss'. This can imply disentitlement from social/digital inclusion policies for ethnic or identity groups that fail to match stereotypical expectations (for instance, Amerindian or Quilombola people who have mobile phones rather than fitting the "traditional" low-tech or "no-tech" stereotype) (Buzato, 2009). A second reason we should focus on understanding how cultural authenticity relates to the new space of intercultural encounters after the pandemic is because the media spaces that have been set up and expanded are prone to a double-edged tendency towards heterogeneity. On the one hand, we should expect that more ways of enacting or staging (the notion) of cultural authenticity will be available as we add more media layers and

representational affordances to intercultural globally. This should in theory mean that crystalized views of cultures based on historical experiences of colonialism and diasporic processes would lose strength vis-à-vis displays (on social media, for instance) of what goes on 'in the real places and bodies' of that keep that culture in motion today. On the other hand, it is known that the new media space operates on algorithms that are geared towards giving media users the same kind of content and interlocutors they have had, and approved of, in the past, creating intellectual isolation through so-called filter bubbles (Bozdag, 2013) or echo chambers (Cinelli et al., 2021). To make matters more complex, we know that even local 'authentic' communities might feel compelled to enact cultural stereotypes to meet expectations of more powerful others—for instance, 'themed' hotel or restaurant staff dressing traditionally or dancing or singing in (often invented) ways more similar to cinema or television (mis)representations of their culture than to the 'real thing' of today. We also know that social media content that stereotypes (misrepresents, essentializes) other cultures will more often circulate outside the culture that is targeted than among the 'real bodies' of that culture. The push for 'social distancing' and the remediation of many kinds of social encounters among culturally different people to the digital might mean both the set-up of a broadened representational-interactional space to be 'colonized' by cultural authenticity ideology and an opportunity to approach the experience of the dynamic heterogeneity and hybridity of cultures in a more realistic, even though hypermediated, way.

Integrative Relations, Digital Technology and Disembodiment

Geoff Sharp's (1985, 1993) theorizations around "constitutive levels" or "extended forms of the social" provide a helpful framework for thinking through how cultural practices and identities are constructed in the global era. Sharp's work theorizes a historical shift from pre-modernity through to post-modernity through which new forms of technologically extended social integration came to dominate through the rapid proliferation of

abstracted modes of intellectual exchange (from writing through to telecommunications) (Sharp, 1993). Following in this vein, Paul James (1996) identifies four levels of social integration: the face-to-face, the object-extended, the agency-extended and the disembodied. Face-to-face integrative relations are the realm of tangible, embodied co-existence and of identity. Such relations thus signify more than just instances of face-to-face interaction. Tribal and customary societies have been predominantly structured around face-to-face integration, involving a sense of being directly and tangibly present with and connected to others, even in their immediate absence. As the primordial form of social integration, the face to face underpins and is embedded in more abstract modes of integration, which make constant reference back to it. *Object extension* emphasizes the way in which objects come to draw relations between people across time and space. Relevant to the current discussion, these objects can be personal, sacred or commodified. A musical instrument, for example, may have begun its life in a situation bound by localized face-to-face relations, but by being commodified (i.e. sold outside those relations) in this case they enter a circuit of meaning that draws subjectivity on that embodied depth while abstracting it into an objectively global set of relations. The musical instrument comes to be layered signifiers of music that carry another world of presence with them in a way, for example, that photographs usually fail. *Agency-extended* integration is that which is extended and mediated through institutions; it renders relations between people as more universalized but nevertheless still bounded by extensions of the body. Through institutions (such as the state or the church), people can be bound together conceptually without necessarily knowing each other at the face-to-face level. The increasing dominance of these modes of institutionalized integration marked the transition to modernity and to the rise of the nation-state. In describing the nation as an imagined material construct, James observes that "members of even the smallest nation will never know most of their fellow-members, meet them or even hear of them, yet in the minds of each lives the image of their communion" (1996, p. 6). The fourth modality of social integration, *the disembodied*, is that which is made possible through technology that allows engagement with the world in a way that is disconnected from the face to face, thereby bringing a profound reconstitution of social relations.

Disembodied relations that rely on media, however, are not a matter of neutrally transporting meanings, as is the case of technologically inscribed (or prescribed) formal, disembodied elements that can travel back and forth across local sites in a network where a nodal centre (literally) 'rules' them. This would be the case, for example, of religious rites in James' formulation, and of Latour's immutable mobiles, that is, formal elements such as equations, datasets and algorithms that can be 'transported' without any change in meaning, whatever the medium used. When considering cultural meanings, we need to consider, first, the role of media itself, how it adds to and subtracts from the experience of those forms and rules in interpreting bodies and, second, that every form of media, the digital included, contains a promise to erase its own mediation; that is, to make the local experience of the represented thing closer to the embodied 'real thing' than previous media would have it be. Writing promised to bring the reader closer to the speaker's real utterances (in the speaker's place and time) than a later retelling would; television promised to make a human's first step on the moon closer and more 'real' than a radio transmission or even a newspaper photograph would. This is what Bolter and Grusin (2000) theorize as "remediation".

For Bolter and Grusin (2000), we keep inventing new media technologies because we have an atavistic desire of "immediacy" (non-mediation) when faced with representations of the world. As this desire pushes us forward, however, we cannot simply invent new media from scratch: we refashion, enhance and rearrange previous technologies, so that the new medium both supersedes the previous' capacity for immediacy and pays homage to it. Meanwhile, the previous, in order to 'survive', tries to incorporate some of the gains brought by the new medium, within its range of possibilities. That is why the first websites looked like newspaper pages and e-mail interfaces still remind us of memos (see also Sherman Young's chapter in this volume), whereas TV screens now show QR-codes, Twitter windows and YouTuber guests, and printed children's books have become 'interactive' and 'modular'. Hypermediation, as Bolter and Grusin (2000) call it, is the price we pay for remediating. It means that each time we take a step towards fulfilling the promise of non-mediation, what we actually do is add more and more layers of media and mediations to the technology. In order to deliver the promise of a 3D cinema

experience, we have to add glasses. A 4D experience requires mechanized-synchronized moving seats, augmented reality requires us to look through a mobile phone screen and so on. The problem with hypermediation is obvious: at least in the beginning, the media becomes more salient than both the representation and the thing represented, and this is true both to the viewer and to the producer.

Importantly, the different modes of integration that Sharp and James speak of are not distinct from one another, but are woven across one another to form the fabric of the contemporary social world (James, 1996; see also Cooper, 2003). It is through these more abstract forms of integration that being Latin American or Asian or Australian or Italian can be objectively lifted out of place, while still subjectively tied back to those more embodied relations that are said to constitute 'authenticity'. In many ways, however, the Covid-19 pandemic disturbed the interweaving of the modes of integration as we expanded and intensified our relationship with remediation, as workers, students, consumers and even health agents had to cope with hypermediation in ill-prepared remediations of their face-to-face relations.

During the 'lockdowns' of the Covid-19 pandemic, face-to-face relations (between friends, families, colleagues, performers and their audiences) collapsed and were replaced by Zoom meetings, video chats, live-streamed concerts and online yoga sessions. A constant stream of humorous jokes, memes and new norms/experiences flew around the internet during 2020/2021: the worker who forgot to turn her camera off while visiting the toilet, the boss who accidentally turned her profile picture into a potato for an entire zoom meeting, the new 'working from home' norm of wearing pyjama pants with a business shirt, the online musical collaborations with mashed together videos from multiple musicians performing the same piece. We were suddenly challenged to re-learn how to represent ourselves, our personal (domestic) spaces through the grammars of these mediations while at the same time, we began to question how close to 'the real thing' we actually were in our embodied encounters at work, schools, shops and medical offices. A case 'went viral' in Brazil, for instance, of a magistrate who used as screen with faux (painted) Law books as his screen background to participate in a Zoom case trial. As the screen fell, viewers could see that he was actually in the

kitchen. He claimed he had the background made because his home office was being renovated that day. Even though he could have blanked out the background electronically, he felt the fake bookcase was necessary to perform his 'authentic justiceship' at home. By the same token, many ways through which cultural authenticity is staged and 'recognized' had to catch up on the remediation of cultural encounters. Likewise, remediated intercultural practices must have preserved an authenticity effect through certain mediations. Gargioni (2019), for example, who studied the Brazilian case of indigenous political vloggers on YouTube, points out that those militants often wear traditional body paint or headpieces on screen while at the same time speaking mainstream Portuguese to their audiences on YouTube, even though none of them were actually broadcasting from their native land. In some cases, their video edits, transition effects and vignettes are stylized to match visual and sound elements of their people's art and religion.

During the Covid-19 lockdowns, life online was a novelty for a while, but before long, a collective screen fatigue set in. It became common to hear people complaining that they never wanted to look at another zoom meeting, that they craved a hug from their friends and family, and longed for an outing to a restaurant or a live music venue. At the end of the various lockdown periods in cities across the world, social exuberance and revelry would ensue. Crowds of people filled the streets and braved the risk of contracting Covid-19 to be in places where other bodies would be in the room: restaurants, nightclubs, music venues (ABC News, 2022; BBC, 2021). If technology allows us to interact in real time, to connect with each other and in some way to share time and space, then what is it that is missing? What is it about embodied, face-to-face experience that a screen cannot give us?

Space, Place and the Imagined Latent Zone

In his seminal work on space and place, geographer Yi-Fu Tuan (1979) breaks down and categorizes the personal experiential space into three zones: the 'visual', 'visual-aural' and the 'affective' zones:

> The space that we can perceive spreads out and around us, and is divisible into regions of differing quality. The farthest removed and covering the largest area is the visual space. It is dominated by the broad horizon and the small indistinguishable objects. This purely visual region seems static even though things move in it. Closer to us is the visual-aural space: objects in it can be seen clearly and their noises are heard. Dynamism characterises the feel of the visual-aural zone, and this sense of a lively world is a result of sound as much as spatial displacements that can be seen…. When we turn from the distant visual space to the visual-aural zone, it is as though a silent movie comes into focus and is provided with sound tracks. Next to our body is the affective zone, which is accessible to the senses of smell and touch besides those of sight and hearing. In fact, the relative importance of sight diminishes in the affective space: to appreciate the objects that give it its high emotional tone our eyes may even be closed. (Tuan, 1979, p. 399)

Experiential space, in turn, is key to understanding the difference between space and place and, consequently, between relations, networks, circulations and embodied, non-technologically mediated encounters. For Tuan (1979, p. 387), spatial organization is at the forefront of geography and its interpretation requires abstraction in the form of quantifiable data and mathematical languages, but place is more than just a location, a unit in the organization of abstract space: places have more substance than their location. For Tuan, a place is a unique entity with history and meaning, which "incarnates the experiences and aspirations of a people" and, thus, is also "a reality to be clarified and understood from the perspectives of the people who have given it meaning" (1979, p. 387). What we can take that to mean, in our case, is that connecting sites through technologies and carrying out intercultural integration of some kind creates an experiential space, but not a place. A place does not become real because it matches an abstract model or formal expectations. Its reality is a function of people being there and giving it meaning from 'inside' here and now and across history. Experiential cultural meanings made across technological mediations cannot be 'dispatched' or 'transported' from place to place as abstractions, shapes or traditional scripts of behaviour. Even a physical object of cultural significance such as a traditional musical instrument cannot carry its local meaning with it to another place. What it can do is embody the abstraction of its place of

origin for those who hold such a stereotype on their minds. On top of that, the meanings people living in places make of those places are in themselves heterogeneous, because societies and cultures afford different experiential spaces for people of different classes, genders, ages, ethnicities and so on. In short, whereas cultural forms, stereotypes and bodies can travel, 'situated' meanings are made through ongoing, embodied, heterogeneous and ephemeral incarnations of experiences and aspirations, not performances or 'animations' of crystalized forms.

Sometimes, (real) places and (imagined) experiential spaces collide, as in the case of so-called Paris Syndrome (Fagan, 2011). The syndrome is a relatively serious health disorder that causes first-time visitors (often Japanese tourists) to suffer from a set of physical and psychological symptoms upon realizing that being in Paris is not what they thought it would be. The symptoms include delusions, dizziness, sweating and feelings of persecution. Here is how Fagan (2011) depicts the collision between Paris as an experiential space pre-constructed in the imagination of many tourists and their embodied, face-to-face encounter with the city as a place:

> despite our international desire to imagine that this is a city where pigeons stay in the parks and the waiters occasionally burst into song, Paris can be a harsh place.[…] Parisians are constantly breaking new scientific ground when it comes to being unaccommodating and even disdainful towards foreigners. If you do not speak French, you can look forward to stumbling through many uncomfortable, labored conversations with people who resent your very existence. The service industry, too, is notorious for treating tourists like something they recently scraped from the bottom of their shoes. Even the public transportation, instead of being the jolly metro cars in antique underground stations we see in films, are hot, overcrowded carriages filled with groping couples, screaming children, and unimaginably loud accordion music. (2011, para. 3.)

Just as places are real, material sites of cultural spatialization, so are bodies the site of experiential spaces where cultural essentialism/idealizations and the real messiness and heterogeneity of cultures are negotiated. As media and mediations get more sophisticated in the way they simulate

the embodiment of a culture in places and characters, they also increase the material and physical pains of moving (physically or mentally) between abstracted/stereotypical and situated/embodied culture.

Another important distinction made by Tuan (1979), which speaks directly to the new surveilled and spectacularized spaces of our hypermediated everyday lives, is that between private and the public spaces. For Tuan, personal experiential spaces—not the same as private spaces, as we'll see—need not exclude others from the I-space relationship. The personal experiential space is an experience of space in which the effect of the presence of others is left out of the account by the experience's perception apparatus, as if fading away on the background. For example, in a public space such as a music concert hall, cinema or football stadium, even a vast number of people do not necessarily generate a loss of privacy for each beholder, as long as the eyes of the crowd are all turned to the same event somewhere else, which makes the remainder of the visual field (other people included) an unoffending blur" (Tuan, 1979, p. 404). A private space, on the other hand, is not an experience, but an intimate space that one owns and is essential to the existence of one's 'personality'. This could range from the viewing of one's naked body by others to the space contained by a bus seat placed tightly together with other seats. One might not mind sharing a small space on a bus temporarily with a friend's or family member's elbow, but the elbow of an impolite stranger might be less tolerable. Private space also extends, as we see it, to symbolic/immaterial circulations in psychological/semiotic spaces that affect one's body through pleasure and pain, since such emotions, whether induced physically or cognitively, are always felt in the body (Damasio, 2006). Thus, to share personal (painful or joyful) authentic memories of embarrassing or blissful moments with a close friend is sharing one's personal experiential space at least as long as such feeling is affecting one's body. By the same token, when an ex-partner exposes one's nude picture given as a private gift on the internet as form of 'revenge porn', it is not only one's reputation or identity that is being damaged: personal experiential space is being not only violated but also remediated. Like objects, private spaces can be exchanged as tokens of affective bonds.

Even though we are not very much aware of it most of the time, our social media, searching, videoconferencing and other online practices

considered 'free of charge' are, in fact, not really free, but a kind of barter of our private spaces with so-called big-tech companies that collect, analyse and dispatch our data for commercial purposes. By posting the things we see or hear and photograph or audio and video record in mass events like a football match or a rock concert, we are usually attempting to turn a personal experiential space at some other location into a sharing of private space with loved ones situated in our (home) place. But because this space is not really private—even if we only share the content with certain other users, there are the algorithms and datasets pointing other human and non-human entities in that space towards us all the time—whatever we post in what we consider our personal space can 'go viral' and out of our conscious experiential space. When that happens, not only does our private space collapse, but we may become the new point to which 'the eyes of the crowd' turn. In other words, the activity in our (not really) private experiential spaces of social media turns us into a point of reference in a disembodied networked relational space, a point of reference for advertisers and people we would not have met face to face otherwise. For advertisers, we become prospective buyers, often for very specific products that we would probably never have walked in and bought from a bricks and mortar store. It is by making us such point of reference that the social media company earn their revenue, which means we are, in a way, products sold to the advertiser by the tech company before we actually buy something from the advertiser. Coming from different experiential contexts in other places, people we do not know might decide to 'follow us' (a telling spatial metaphor) or even hate us without ever having met us face to face and looked us in the eye. What social media experience shows, in short, is that technologically mediated relations among people are not simply neutral connections for expanding symbols. As they reorganize spatial relations by means of technical affordances, they also affect the meaning of our activities and the role of embodiment in socialization.

Tuan made his observations about place and space in 1979, prior to widespread use of the internet. Against the background of Bolter and Grusin's (2000) reflections on remediation, Tuan's observations are highly relevant though, for thinking through what is qualitatively different about face-to-face versus screen-mediated engagement, and for making

sense of how digital technologies change our ways of relating and being in the world. Reflecting on the categories of experience that Tuan outlines, it becomes apparent that engagement with a screen always occurs in the visual-aural zone. It does not occur in the broad horizon, and—as anybody in a 'long distance relationship' or anybody with family far away could attest—it cannot reach the affective space, no matter how much immediacy the technology promises to provide. Engagement through a screen is always visual and often aural but never includes taste, smell or touch. It can only make reference to these senses but cannot embody them, except through more layers of mediation which, again, would draw the experience to the media itself. Not even virtual reality technology can transmit these senses that belong to the affective zone, although it can cause a lot of hypermediaton in attempting to do so.

Tuan breaks down the aural-visual zone even further into the 'patent zone' and the 'latent zone'. The *patent zone* contains those things that engage our immediate awareness; what is in the foreground and engages our immediate attention, and what lies just beyond in the middle ground, providing a visual context. The *latent zone* is invisible to the naked eye but is the spatial and temporal context that surrounds and contains the patent zone. "Although I cannot see through the walls of the hall… I am subliminally aware of the existence of a world, not just an empty space, beyond the walls. That latent zone is the zone of one's past experience, what I have seen before coming into the hall; it is also potentiality, what I will see when I leave the hall. The latent zone is invisible but necessary to frame the patent zone" (Tuan 1979: 399). Although the latent zone exists in our imagination, it is constructed based on past embodied experiences geographically connected to our present experience. Contained in the latent zone is not only a map of space, but of socially constructed meaning. Media genres such as cinema, television or videoconferencing make intensive use of our capacity to sustain latent zones in our engagements with content and interlocutors. That is what allows for a film viewer to understand that a one-on-one sword fight is inside a huge battle that is never really shown on screen. It is also what allowed so many Zoomers, during the pandemic, to create a 'professional space' while working in their living room by using a bookcase as a background, or led

people in jackets and ties to be caught videoconferencing in their pyjama pants.

Take for example a globally televised spectacle like Rio de Janeiro's famous Carnaval parade. A local resident of Rio de Janeiro can sit in the stadium and watch a spectacle and know that just beyond the shining lights are dark streets, piles of debris and shantytowns (see Kath, 2014)—the distant viewers watching the spectacle from across the globe are unlikely to see this backstage world.

For the local resident of Rio de Janeiro, though, what lies beyond the carnival stadium is more than just visual context. The parade is embedded in a web of past experiences that imbue it with social meaning: there is the disruption to the rhythm of her everyday life that she has come to expect every year at carnival time, the months of rehearsals and building preparations prior to the event, the conversations, rituals and interactions that give points of reference for understanding what the event means to those who perform it. On the other hand, the distant viewer receives only bright moving images and loud sounds from the main event. He does not have access to a latent zone and so, to situate and make sense of the images in his mind, he must therefore construct a latent zone with his imagination based on whatever points of reference he can find. It might be that he once saw a Carmen Miranda film, or the Disney film 'Rio'. He might associate the feathered dancers in their small bikinis with 'exotic dancers'. If he has never visited Brazil or known anybody from Brazil, and lives in a place (such as Australia) that does not receive much news coverage from Brazil, then simplified stereotypes might be all that he has to draw upon. In his mind, the carnival image he sees both confirms and reinforces a latent zone filled with wild, exotic, scantily dressed party people (see Kath, 2014).

The ideology of cultural authenticity is supported by the projection of 'imagined' latent spaces. A world where life is constantly mediated by digital technology is one that calls upon us to constantly invent the latent zone without any experience of an embodied context. Cultural stereotypes are often the default. Stereotypes, as collectively constructed myths, deprive lived situated cultures of 'authentic latent spaces'; that is, 'places' in the sense that Tuan (1979) defines it, the experiential historical,

affective, meaningful background incarnated by places. Will the new disposition towards integrating global and local scales through screens, cameras, microphones and software provide more immediacy, in the sense of more images and sounds from places (in Tuan's sense) or will the disposition of projecting and managing others' latent spaces prevail after the pandemic? Are we to give more value to the affective zone that provides us with a fuller personal experiential space when we are exhausted from relating through screens, or has the visual-aural space become so hegemonic that we will focus more and more on designing visual-aural spaces and less on embodiment and affection? We have gathered some anecdotes to illustrate this discussion.

Before we end this theoretical review, though, we present the reader with a summary in Fig. 2.1 below of how, for the purposes of this chapter, we relate the inputs of Geoff Sharp and Paul James's concept of modes of integration, Bolter and Grusing's concept of remediation, and Yi-Fu Tuan's conceptualization of space and place to relevant aspects of the myth of cultural authenticity.

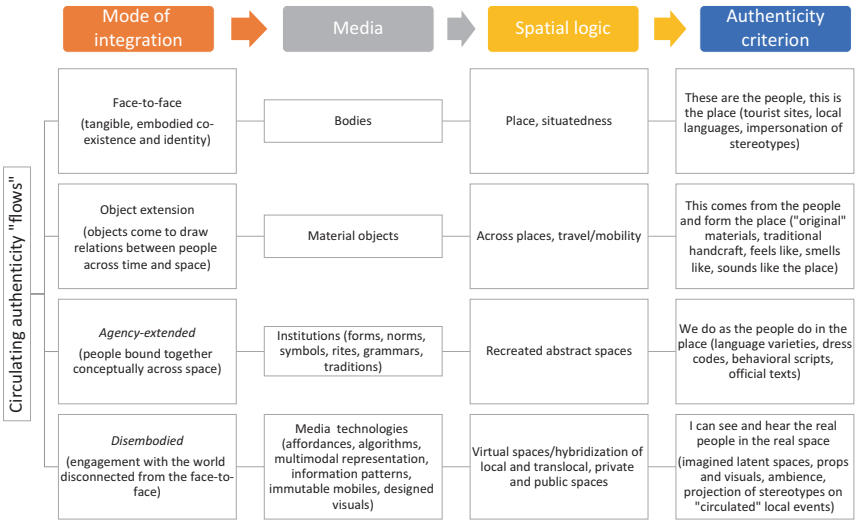

Fig. 2.1 Modes of integration, media and spatial logic in the production of the experience of (alleged) cultural authenticity

A Few Stories

Disney's 'Encanto'

Following a history of animated fantasy films throughout the twentieth and twenty-first century that travel the world and portray 'other cultures', in 2021 Disney released its Colombia-themed film 'Encanto' during the Covid-19 Pandemic. The film portrays a Colombian family filled with vivid characters living in a beautiful, magical house with equally vivid colours and pristine traditional cultural representations. A viewer in the United States, Australia, Asia or Europe who might not hear or know much about Colombia could watch the film and easily imagine an intriguing, colourful dreamland, with magical houses and exotic, passionate characters. In the age of globalized markets and global communication technologies though, Disney films are viewed everywhere, including in Colombia. Here viewers were in the interesting position of watching an externally imagined representation of their everyday reality. In the age of the internet, Colombians could also immediately launch into public conversation about this in real time. No sooner was the trailer for the film released, than memes began to circulate in which Colombians humorously intervened to contrast the idealized Colombia portrayed in the film with their everyday reality. In one example, a meme shows Encanto's magical house alongside a Colombian shantytown with the caption: *Oh que linda casa Colombiana! Porque la mia no se ve asi?* ("Oh what a beautiful house! Why doesn't mine look like that?"). In this case, Colombian viewers were able to denounce the falsity of the latent space with which the producers replaced their lived places. In reproaching this representation of themselves and their culture, though, were Colombians rejecting a stereotype or claiming 'authenticity' to the Colombian culture for themselves? The meme is saying that Colombian houses are not like the film's houses, those houses are not authentic; yet, for readers outside Colombia as a place, the circulation of the meme could also invite another, equally misleading, latent space for Colombian culture, one that matches existing stereotypes about Latin America involving poverty and lack of urban development. Neither extreme would be an authentic representation, even if there were an authentic Colombian culture to represent.

FIFA World Cup in Russia

In 2018s FIFA World Cup in Russia, Luis Felipe Gómez, an employee for Colombian airline Avianca Cargo was seen on a Facebook video posted by a group of fellow Colombians as he took a sip of alcohol. The alcohol had been sneaked into the stadium in a pair of false binoculars by a couple he claimed not to have met before. As the video went viral (probably because of the ingenuity of the smuggling), Gómez was fired on grounds of having jeopardized the image of the company. The background of this is that Russia had banned all kinds of alcoholic beverages due to a public health issue with alcoholism. In the midst of this though, FIFA had Russia pass a bill allowing for beer, and only beer, to be sold in the stadium because a brand of beer was their main sponsor (the same thing in happened in Brazil in 2014). And so, the politics and commercial interests of this particular event meant that, while there was alcohol served in the stadium, attendees were banned from bringing their own alcohol.

This anecdote can be understood through Tuan's (1979) distinction of private and public spaces, as it plays out in the digital remediation of cultural meanings. In Gomez's case, we can say that the third person who posted the video used the media to extend his or her personal experiential space, that is, by sharing it with his friends and loved ones back home. 'Back home' was arguably part of this person's latent space (whomever and however the video should have served as a token) that contextualized his personal experiential space. In this global-local transaction, a temporary normative space was opened in a place (a Russian stadium) which reminds spaces around the world (leisure and entertainment spaces such as sports arenas, in general) where drinking is allowed. Oddly enough, by insisting on serving alcohol, FIFA reinforced a negative stereotype of Russian culture as excessively permissive of alcohol consumption, which, later, through the meme, connected with a cultural stereotype Colombians as tolerant of or involved with smuggling of illegal drugs. Gomez tried to excuse himself by saying he didn't even know the couple with the binoculars: he was offered a sip and he took it as a temporary bonding with a fellow supporter. So as Gomez and the binocular couple shared their

private space as a token of affection, that space was encapsulated in someone else's private experiential space through Facebook and, later, materialized as a meme that launched the initial private space into the spotlight of a massive crowd. In the pandemic, we have seen countless such memes of people mishandling their video permissions at home and becoming memes, especially in the case of people who already are the object of public attention. Brazilian judge Joao Egmont Leoncio Lopes was one such example, when he was spotted with his wife sitting on his lap in the middle of an online court session (Castro, 2021). As we have seen, these memes not only encapsulate private experiential spaces they also carry opportunities for the staging of cultural stereotypes and cultural authenticity claims that have no connection with the lived experiential feelings, meanings and aspirations that constitute the places of such exchanges.

Hilaria Baldwin as Cultural Imposter

A viral scandal broke in 2020 following claims that Alec Baldwin's wife, Hilaria Baldwin, was faking her Spanish identity. Numerous video montages circulated with examples of Hilaria speaking English with a strong Spanish accent, famously including one video where Hilaria appeared to forget the English word for cucumber during an appearance on a cooking show where she was demonstrating a recipe for gazpacho soup. The montages included a video of Hilaria's husband Alec, referring to his wife as 'Spanish', and Hilaria being introduced on talk shows as Spanish-born. The scandal broke when somebody discovered that Hilaria was a white American girl born and raised as Hillary in Boston. Hillary had holidayed in Spain with her parents while growing up, and in the process learned to speak Spanish. Classmates from her high school said she spoke English growing up and had no Spanish accent when they knew her at school, had much lighter skin and blonde hair. As goes the cycle of the internet scandal, soon Hilaria released her own video to address the criticism. "People ask sometimes about how I speak. I am that person that if I've been speaking a lot of Spanish, I tend to mix them… I spent some of my childhood in Boston and some of my childhood in Spain" (Sheehy, 2020). A flurry of furious talk show debates ensued, with guest

opinionators providing their views on whether or not Hilaria Baldwin had a right to express her identity in the way she had. Some argued that Hilaria was being judged too harshly, and that anything goes in a world where we all borrow cultural products, practices and influences all the time. If all culture is hybrid, we might expect that Hilaria Baldwin's enthusiastic adoption of Spanish culture in the twenty-first century is nothing unusual. It is no longer unusual to speak multiple languages or have spent time in multiple locations that have culturally influenced us. So why did Hilaria ignite so much ire? One argument put forward by commentators was that Hillary was a white woman claiming space that belonged to Hispanic women. A magazine cover occupied by Hilaria representing Hispanic culture could have been offered to a woman born in a Hispanic country. Others pointed out the separate issue that she had lied about where she was born.

This episode of 'cultural appropriation' highlights some aspects of the culture-technology-space discussion that could be useful to understand in a post-pandemic world. First, while critics claimed the Spanish identity was fake because she was born in America, she justified her enacting of a Spanish identity through language by referring to her embodied presence in Spain as a place. In other words, she did not refuse the authenticity myth, but claimed not to be 'stealing' authenticity from Spanish-born women on the grounds of embodiment (spoken language and accent) and experience (place). Her appearances in the media, however, circulated such performances across a site (Boston) where her body had been more 'permanently' in the past. If her bodily ways and her accent were digitally remediated, and, consequentially, remixable and subject to viralization, it was not primarily because her private experiential space had been inadvertently encapsulated and dispatched to the remediated private space of an observer in the crowd (as was Gomez's case, in the stadium). Rather, it was because she used some portion of her private space (of feeling/being Spanish and nurturing a Spanish 'personality' among friends and family), not just as a token of an affective bond (with her husband, her fans and so on) but as a commercial good in a public space. Hilaria was seen to slip in and out of her accent depending on the audience, and to 'ham up' the Hispanic stereotype for the cameras when invited, for example, to perform the 'exotic' Spanish woman making

gazpacho soup on an American cooking show, and all of this appeared to have been profitable for her. This anecdote, therefore, tells us about the authenticity ideology not only in terms of disputed belonging of certain bodies to certain identities, but also about the value of displaced or dispatched identities in a 'cultural market'. Like the musical instrument we mentioned earlier, Hilaria's accent was commodified as part of an object-extended relation. As this object was remediated and circulated more broadly, the face-to-face relations that seemed to connect her body to a place of authentic Spanishness crumbled. Thinking again about the hypermediated post-pandemic intercultural encounters, we should probably ask if the fact that people from different places in the world interacting intensively through remediated face-to-face relations will still need or be able to rely on stereotypes such 'this is how a Spaniard or a Brazilian or an Italian speaks English', and, consequently, whether these hints on an imagined authenticity will still be amenable to commodification or the if language stereotypes, which are so important in the authenticity myth, will tend to lose power.

YouTube Accents at Home

As happened in many countries around the world, the COVID-19 pandemic caused the great majority of Brazilian schools to take the emergency measure of suspending face-to-face classes and 'remediating' classroom genres through videoconferencing broadcasts and other means. This meant that the great majority of Brazilian children stayed home all day and were allowed (or forced) to use the Internet intensively, both for school and to play, since they were isolated from their school friends as well. A few months after, posts began to trend on social media about what, later, the press would call 'YouTube accent' (see also Yang, 2021). Basically, Brazilian parents had started to notice their children, who watched YouTube for longer hours than when they went to school physically, adopting unusual kinds of syntax, vocabulary and suprasegmental features (intonation, rhythm, tone, duration and stress) in their speech, features coming from different kinds of regional dialects and prosodies that were not commonly heard where they lived. There was even a

noticeable tendency for many kids to adopt what one could call 'youtuber speech styles'; that is, to speak very fast, with very short or no pauses between sentences and unusual variations in tone and volume as if to liven up their utterances. This in itself is noteworthy because YouTuber speech is highly mediated by dry cuts and other montage resources that are difficult to mimic with one's natural speech apparatus.

Kids also adopted interjections and other discourse markers typical of other regions of the country (such as 'oxe!', a typically northeastern exclamatory expression being used by children in the Southeast, or 'sai, satanás'—go away, Satan, frequent in the dialects of Pentecostal evangelic families, used by kids in families with no religious affiliations). Like in the Hilaria Baldwin anecdote, the connection between language and essentialism is highlighted by 'YouTube Accent', since, in Brazil, as elsewhere, there is a strong tendency to stereotype regional cultures with specific/iconized language traits supposedly expressive of the speaker's identity. As school and home spaces were hybridized through internet connections, study and play genres were remediated through digital media of a different kind to that of TV, print or previous media. Brazilian families with kids got a (not necessarily welcome) taste of the heterogeneity of Brazilian culture as cultural hybridization, which began to show in their children's embodied selves. Certainly, this was a matter of concern for parents bound by the cultural authenticity ideology. It is important to highlight, in this case, that the home is probably the most significant site where personal experiential spaces and a sense of place converge, so that the pandemic, by means of digital technologies, challenged the cultural polarization famously theorized by Roberto Da Matta (1985) between the stable hierarchical normativity (in this case, linguistic) of the Brazilian house and the situationally negotiable utopias of egalitarianism (e.g. Carnival) enacted in Brazilian streets. Should we expect that other cultural polarizations, between hierarchy/normativity and egalitarian utopias supported by spatial arrangements and media conventions, which were temporarily bridged through digital media in the pandemic, be shaken up? In other words: Are these children going to feel obliged to justify their YouTuber accent, should it last, as Hilaria did, or will we be able to rid more of our experiential spaces of authenticity utopias?

Conclusion

In this article, we have argued that despite the huge increase in the number and frequency of online interactions among people from different cultural backgrounds, which had the potential to increase the visible evidence of cultural hybridity everywhere, the myth of cultural authenticity at the root of so many kinds of discrimination and tension among cultural groups in the twenty-first century has not faded. It is more correct to say that the authenticity myth is both weakened and reinforced, for both processes are afforded by the works of re-spatialization that occur through networked instant communication, and through computerized representations of the world.

During the Covid-19 lockdowns, the overall intercultural meaning-making activity on the planet suddenly became more networked, and (physically) distanced, so the face-to-face forms of integration became reframed in the genres of digital media. The experiential spaces of intercultural situated encounters dissolved, or were remediated, into the visual/aural space of screens.

With this came opportunities to expand our understanding of the contexts in which cultural forms are embedded by interacting with people whose real experiences and aspirations reconfigure and hybridize the local cultures that the myth of authenticity wishes to crystalize and push back into some mythical tradition. However, with this also emerged an impulse to hypermediate our face-to-face integration (with fake bookcases, and other background screen settings) so that those viewing us could invent latent zones based on the past stereotypes that would give as a sense of commonplace, or a familiar constructed context. That is, although we had built only a mediated experiential space, we crafted imagined places by means of interface designs, camera angles and background choices.

Figure 2.2 summarizes essential aspects of the theoretical contributions we have used, as illustrated by the several anecdotes we have discussed, as a question of how digital technologies (coupled with mandatory social distancing) produced a certain re-spatialization and remediation of intercultural relations that both challenges and facilitates the ideology of cultural authenticity.

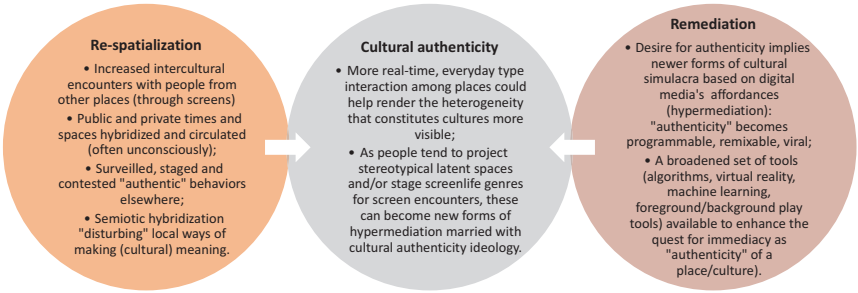

Fig. 2.2 How re-spatialization and remediation affect the myth of cultural authenticity

Social media content such as simple meme, for instance, can stereotype (misrepresent, essentialize) cultures in faster, deeper and more unpredictable ways than did a film or a pop song in the past. At the same time, it might circulate back into its site of production modified in such ways as to revert the stereotype, supposing someone from the target culture modified it, as in the anecdote of Disney's 'Encanto'. It could also, however, spread even further and become more material for imaginative latent spaces of that culture in the minds of users worldwide. As is the case with 'fake news', conspiracy theories, and propaganda on the internet, we know only a fraction of those reached by inadequate content ever get retargeted by the algorithms with the redress. Likewise, a child with a YouTube accent that resembles a stigmatized or less prestigious dialect might soon become aware of the linguistic discrimination suffered by speakers of that dialect, if reproached by a family member or a friend, and, hence, be less prone to believe in linguistic purism. The lockdowns have pushed us for more permanent 'social distancing'—even as the pandemic settles, many companies, schools and other sites of face-to-face integration are announcing the adoption of work-from-home and hybrid practices. As the remediation of many kinds of social encounters among culturally different people into digital spaces appears to be gaining scale, we can take note of both the risks and opportunities this brings. We may witness the establishment of a broadened representational-interactional space to be 'colonized' by the cultural authenticity ideology. On the other

hand, there will be increasing opportunities to approach the experience of the dynamic heterogeneity and hybridity of cultures in a more realistic way, provided we escape the pitfall of hypermediation in exchange for an always illusory immediacy.

An underlying key concept of this discussion that is not new is that of hybridity. We hope our discussion has modestly contributed to the argument that not only cultures but also spaces and technologies are always already hybrid. Spaces are hybrid in the sense that private and public spaces can coexist, as the anecdote of the Colombian fan in the Russian stadium shows, for example. Media technologies are hybrid in the sense that every new media appropriates conventions and affordances from the previous ones and will only develop further by being incorporated into the next version. The incapacity of people to see spaces, media and cultures as hybrid is neither technical nor experiential, but political and ideological. We feel the need to imagine places and spaces as homogeneous because our politics and economies depend on there being bordered territories; we see technologies as black-boxes because they are attached to patents, copyright laws and consumer markets; we want cultures to have an essence, a place of residency and fixed ways of making meanings and identities because this makes it easier for us to have a sense of ourselves as essential, situated and autonomous. To observe and analyse the ways of authenticity as it plays through media in the post-pandemic world is, therefore, also a matter of observing and analysing how authenticity claims weave themselves into the fabric of (imaginary) authentic spaces generated by (blackboxed) authentic technologies.

It is precisely abstraction from the 'authentic' that feeds the myth of authenticity (which also means that cultural authenticity, only ever observed from the outside in, always entails some degree of cultural stereotyping or simplification). Relating through the screen is a mode of relating through disembodiment, even though it is not completely disconnected from the body. Digital media are based on the ultimate form of disembodiment, which is informational patterns that can be replicated forever without ever reproducing anything physically (Hayles, 1999). In the absence of bodies where authenticity can be found, the screen becomes the space where abstractions such as cultural authenticity find their pretence of embodiment.

In sum, whereas we assume that the online world would bring a conceptual dilution of the myth of cultural authenticity, it also does the opposite of allowing fertile ground for the cultivation of cultural myths (that can never be verified). The increasing sophistication of digital communication technologies suggests an endless quest for a more 'real' or 'authentic' experience; that is, one that more closely resembles an embodied experience. We want the fantasy to be real. We want the medium to disappear. This quest brings ever more elaborate ways of emulating the face to face (Bolter, 2000). We do this by trying to create more sophisticated virtual reality at the cost of more and more technical mediation. But the latent zone is already a virtual reality which remediation cannot pre-fabricate because lived, situated experience cannot be transplanted. The latent zone is always being pieced together by whatever the viewer's imagination can call upon, a process which draws from and feeds the myth of cultural authenticity.

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3

Disruptive Technologies and New Threat Multipliers

Aiden Warren

Introduction

The advent of new and emerging technologies is playing an era defining role across every facet of modern life. Whether it is in the manufacturing of goods and services, global navigation systems, user-interface software and self-driving vehicles, the pervasiveness of such technologies will pose great challenges to many fundamental tasks and interactions in the coming years, including how we work, travel and communicate with each other. In terms of the security domain, analysts, policymakers, civil society groups and defence and intelligence officials have identified a number of emerging technologies that could have a disruptive impact on global stability and threaten our survival. These technologies include but are not limited to: drones, lethal autonomous weapons (LAWs), cyber and artificial intelligence (AI). As these technologies mature, they could hold significant implications for defence authorizations and appropriations,

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military concepts of operations and the future of war (Sayler, 2021a). Moreover, as they evolve, they will continue to pose ethical and reliability questions about the use (and misuse) of military and technological power.

The transition from 4G to 5G (and 6G) also has the capacity to engender multiple complexities and disruption across the state, non-state, global governance and security domains. Additionally, other emerging technologies are developing, including advanced manufacturing techniques (3D printing), nanotechnology and quantum computing (such as miniaturization of military technology), bioengineering (such as biological weapons agents and human-machine symbiosis) and digitization technologies (such as military tools and applications to manage 'big data'). Further, it is evident that the most powerful state actors and multinational corporations are investing extensively in the range of such emerging disruptive technologies (Steff, 2018). While the dangers and security complications of the above-mentioned weapons and devices are not yet fully realized, policymakers will be compelled to address the threats presented by advanced weapons technologies and formulate international provisions to regulate or mitigate their use.

In providing both an introductory and holistic assessment of emerging technologies, this chapter seeks to elucidate the security challenges emanating from their intensification and aberrant advancement. Indeed, just as the proliferation of technologies are disrupting many sectors of domestic economies, they are also transforming the global security arena. Diplomacy, deterrence and direct military action, tools that have long been utilized to safeguard the national interest, are being tested by precipitously evolving technologies and are presenting new problems with no clearly defined guardrails or solutions. Evidently, the power and pace of modern technologies call for cultivating new approaches to preventing catastrophic conflict between states. As this chapter explains, while some efforts have been undertaken in the direction of regulating the usage and application of such technologies, agreement on pathways forward across the domains of states, non-state actors and global governance have been hard to attain (Klare, 2018). In the current era of omnipresent and near-instant communication, rapid technological changes have greatly

shortened the time for governmental consideration, decision and action even as these changes present complex and difficult new problems of the kind that this chapter seeks to unpack.

Drones: The Precursory Driver

Over the course of history, human beings have come up with creative and varying ways to kill each other. Within the last hundred years or so, combatants have become increasingly detached from the act of killing as new inventions—including planes, cruise missiles and, in recent times, unmanned aerial weapons—have allowed them to engage and attack enemy targets from ever-increasing distances (Warren, 2018). As an '*older*-new-technology' discussed here, it has been uninhabited aerial vehicles (UAVs), remotely piloted vehicles (RPVs), unmanned military systems (UMS) or simply, 'drones', that illustrate the "epochal transformation" of violence (Latham & Janes, 2014, p. 767) and a "new species of war" (Mundy, 2011, pp. 219–237). Controlled remotely from virtually anywhere on the planet, drones became weaponized devices in the military suite in the early 2000s, and since the early 2010s in particular, contributed significantly to what has been termed as the "dehumanization of death" (Strawser, 2013, p. 3).

Aside from the debates surrounding the ethical and logistically 'easier threshold' in using drones in conflict, arguments pertaining to their development and increased autonomy—as advanced AI comes into the fray—have also expanded. In particular, as such innovations provide devices with the capacity to 'discern' and 'determine' their own specific mission actions and, specifically, make lethal decisions on their own accord, so too have debates become more prevalent (Strawser, 2013, p. 16). For the time being, however, practically all 'robotic' weapon systems being developed and deployed in the present necessitate a human operative to make strategic judgements; simply put, they are remotely operated or unmanned military systems (UMS) rather than actual autonomous systems. Unmanned aerial vehicles (UAVs) such as the Predator, Reaper and Global Hawk, widely used in Afghanistan and Iraq for instance, are 'robots' insofar as they are unmanned and do not have a

pilot onboard. While they typically possess the capacity to undertake autonomous movements (e.g. the Reaper is capable of flying between waypoints without a human operator), they can predominantly be considered as remote controlled machines than wholly autonomous weapons (Whetham, 2013, p. 83).

To clarify, the spectrum of human-machine autonomy has three levels: a human-controlled system that can operate on autopilot for simple tasks but requires a human to make major decisions is often referred to as having a "human in the loop"; a human-supervised system that can perform all tasks autonomously but is subject to human override is said to have a "human on the loop"; and finally, an unsupervised system capable of full autonomy acts with a "human out of the loop" (Melzer, 2013, p. 6). While the drone 'stage' has a human 'in' and 'on' loop, as new weapons continue to evolve out of present-day UAVs to the truly autonomous types—where there is *no* human on the loop—debates relating to the morals and ethics of war fighting and interventions will become increasingly complex (Strawser, 2013, p. 16). Certainly, the advent and deployment of autonomous weapons systems with the ability to wield deadly force without the involvement of a human engenders serious ethical concerns pertaining to the extent they may further lower the threshold for military action, the accountability for deaths these devices cause and the prospect that autonomous weapons could—as farfetched as this may sound now—turn against those who have designed them (Sparrow, 2007, pp. 62–77). An array of contemporary security theatres signify that such weapons will play an increasingly important role in future conflicts, particularly given that many states in the context of the wars of choice-rather-than-necessity are concerned by casualty and subsequent political fallout. It is this strategic temptation and allure that has made them a weapon of choice; where even the more "moderate" President Barack Obama departed office with the infamous title of "Drone Warrior" (Jaffe, 2016).

Today, approximately 100 states and non-state groups have drones, and a range of actors have access to armed drones. As Paul Scharre, Director of Studies at the Center for New American Security argues, the propagation of these systems looks set to persist: "China is by far the leading exporter of armed drones worldwide. But drones are not just accessible to leading military powers. Middle powers such as Iran and Turkey

have access to drone technology and are selling systems abroad" (Marcus, 2022). Additionally, states and non-state groups that do not have the financial capacity to purchase fighter jets can afford drones. While drones are not as efficient as such jets, they give clandestine actors access to some airpower. Coupled with digital technologies that facilitate high-definition surveillance and accurate strike, drones are lethal forces (Marcus, 2022).

Lethal Autonomous Weapons Systems (LAWS): The Intensifying Dimension

In the context of emerging technologies, drones can be considered in many ways the precursor to Lethal Autonomous Weapons Systems (LAWS). Whereas a drone requires a human involved in the decision-making process, Lethal Autonomous Weapon Systems (LAWS) are an emerging class of weapon systems with the capacity to independently recognize a target and utilize an onboard weapon system to engage and destroy a target *without* manual human participation. LAWS require computer algorithms and sensor suites to categorize an object as antagonistic, make an engagement judgement and steer a weapon to the target. This competence empowers the system to function in communications-degraded or -denied environments where traditional systems may not be able to operate. LAWS are not yet in extensive development, and some senior military and defence chiefs have articulated fears about the ethics of ever utilizing such systems (Sayler 2021a). Their concern is that as the human role moves from being "in the loop" of the decision-making process (with such devices not making all the key calls) to "on the loop" of the decision-making process (where the human's role pertains to overseeing operations rather than actually directing), to the level where the human role moves completely "out of the loop" (Gilma, 2014). Through such an evolution, the complexities and dangers of war will markedly increase. As cyber-conflict, AI and software algorithms that make most of the decisions at digital speed continue to expand and are added to LAWs, how this will evolve in the context of current and future conflicts,

interventions, international law and considerations regarding the further 'dehumanization of death' remain an ongoing source of consternation.

The issue has drawn the attention of the international community, underlined with expert meetings on LAWS held by state parties of the Convention on Certain Conventional Weapons (CCW) at the UN Office in Geneva in 2014 and the years thereafter. While international humanitarian law (IHL) mandates that the use-of-force must be proportional and circumvent indiscriminate casualties and damage to property, the use of "LAWS or 'killer robots' will be unable to adequately assess proportionality and precision", that is, where astute decisions of proportionality of force are needed to evaluate "dynamic environments" and "require highly qualitative and subjective knowledge, which are just the things that robots could lack"(Garcia, 2015). Given that international law is ill-equipped to deal with the myriad of advances in such weapons technology—by the time law is adjusted for one set of technologies, a new set emerges—the regulation of LAWS/"killer robots" in the context of complex security scenarios and warfare, as it stands, is by no means in a position to be addressed sufficiently (Warren, 2018).

As technology incorporating AI continues to advance, LAWS, as weapons designed to make decisions about using lethal force without manual human control, will continue to present a plethora of ethical, legal, diplomatic and strategic dilemmas. In terms of where 'autonomy' sits in the context of a robot in action, observing, planning and execution (as well as, manipulating, navigating and collaborating) are central features. The main focus when fusing AI and robotics is to maximize and operationalize its level of autonomy through learning. The degree of intelligence can be measured as the capability to 'foresee the future', through planning a task, or interacting (either by manipulating or navigating) with the physical environment. While the development of a system displaying human-like intelligence, appearance and actions is not expected in the near-future, robots that can complete specific autonomous tasks, such as driving a vehicle, flying in natural and human-made environments, swimming, carrying boxes/material in different terrains, picking up/putting down objects, already exist today (Yang et al., 2018, p. 24). Not surprising, given the pace to which autonomy is being incorporated into the LAWS/robotic space, so too has the intensification of international groups

calling for forms of governance to regulate the advent of LAWS (Warren & Bode, 2015, pp. 174–199).

In response, the international community has begun to examine the implications of LAWS via discussions held principally at the Convention on Certain Conventional Weapons (CCW), a multilateral arms control agreement that aims to protect non-combatants from inhumane weapons of war (Sayler, 2021). When CCW entered into force in December 1983, the treaty applied to combustible weapons, mines and booby-traps, and weapons intended to wound through the distribution of small fragments. In more recent times, treaty states-parties have proceeded to add provisions on banning laser weapons, addressing risks presented by unexploded armaments leftover after conflict ends, and more recently (Abramson, 2017), as a forum for discussing new weapon technologies (Sayler, 2021). While international humanitarian law mandates that the use-of-force must be proportional and circumvent indiscriminate damage and killings, the use of "killer robots will be unable to adequately assess proportionality and precision"; that is, where discerning decisions of proportionality of force are needed to evaluate "dynamic environments" and "require highly qualitative and subjective knowledge" (Garcia, 2015).

Debates in the Discourse

The question of how states will react to this new area of LAWs based technology is still unclear, nor is how they will regulate such use or treat international law regulating such force (Warren & Bode, 2015). The debates surrounding how to respond to the challenge of LAWs falls into what can be perceived as 'three points of differentiation'.

Proponents for Banning LAWS: In terms of those views that endorse the banning of LAWS, there is a variation in emphasis. On one level, there is the 'moral' camp that argues that LAWS separate human judgement too far away from instant decisions pertaining to the destruction human life, and therefore, such weapons should be banned. Secondly, there are 'legal' argument proponents that contend that the use of LAWS may contravene the essence, if not the letter, of both International Humanitarian

Law (IHL) and Law of Armed Conflict (LOAC), and as such, should be pre-emptively banned. As a technology that is continually developing, the reliability of LAWS emanating from poor design needs to be questioned when viewed in the context of attacking and executing non-combatants. Legal arguments have periodically cited the CCW protocol on blinding lasers as a comparative case to this end. Lastly, there are those arguments that fall into the 'strategic' category, who argue that the development of LAWS could actually undermine a states' national security, because once developed and deployed, they could spur both an arms race and proliferation to potential adversaries, particularly given that AI technology can be easily dispersed due to its digital nature (Sayler, 2021; Warren & Hillas, 2020).

Proponents of LAWS: In terms of those who are in favour of what LAWS can offer strategically, there is the state-centric view that points to the military advantages LAWS could provide over probable enemies. For instance, LAWS could be utilized in swarming incursions or to infiltrate anti-access/area-denial (A2/AD) zones with minimal fatalities. Others also claim that LAWS can facilitate a government's duty of protecting their citizens through improving a state's national security. Additionally, proponents point to the notion that LAWs *actually* embolden IHL by reducing disproportionate collateral damage during conflict by providing military decision-makers with the requisite information in which they can discern between military targets and non-combatants. Further, advocates of LAWS have made the argument that IHL focuses not on the weapons themselves but on the method with which they are utilized, and as such, human commanders remain accountable for any decisions made pertaining to the use of LAWS (Sayler, 2021; Warren & Hillas, 2020).

Proponents of Regulating LAWS: The regulatory category sits somewhat in between the above two. Instead of an outright ban, advocates here highlight that while there are potential benefits that LAWS and associated technologies may yield, there are also concerns that may arise from their unbridled use. In this context, they endorse: the banning of LAWS in warfare (but not necessarily their development); the prohibition of specific types or components of LAWS; and/or the implementation of a framework/convention for nonproliferation. Some within this camp, however, have recommended that no controlling action should be

undertaken until LAWS are further developed, as limits on such weapons may be inherently defective and premature (Sayler, 2021; Klare, 2018).

The political context for such considerations falls mainly with the United Nations (UN) Convention on Certain Conventional Weapons (CCW), which first held the Meeting of Experts on LAWS in 2014 and elevated the issue to the Group of Governmental Experts (GGE) on LAWS, first held in 2017. However, there has been a push by civil society advocates, such as the Campaign to Stop Killer Robots, to go much further and impose a pre-emptive ban on LAWS. Opponents of LAWS are solemnly concerned about the possible use of LAWS, by state and non-state actors, and consider this unethical and in violation of International Humanitarian Law (IHL), also known as the Laws of Armed Conflict or the Laws of War. The technical challenges and concerns pertain to the degree to which robots can distinguish between combatants and non-combatants and whether they could apply the proportionate force to achieve military objectives. Other issues relate to how a human would be able to determine and address causes of error in real time and mete out punishment for misconduct. If the international community adopts neither a hard law approach (such an enforceable ban) nor a soft law approach (such as de-legitimizing LAWS through a non-binding CCW protocol), then it is possible LAWS would be used (Warren & Hillas, 2020).

Cyber Security: The Porosity of Threats

Recent incidents have highlighted the lack of international consensus on what actually constitutes cyber security. While there is no universally agreed upon definition, the term generally pertains to an attack which utilizes an electronic component (such as a computer worm, virus or malware) to infiltrate and seriously destabilize critical infrastructure. This could encompass an attack specifically on amenities, services and systems which, if taken offline for a protracted timeframe, would spur a serious security risk across the domains of public health, the environment, the economy or national security. There are of course other definitions that are much wider. A regularly cited definition comes from Kenneth White: "the premeditated use of disruptive activities, or the threat thereof, against

computers and/or networks, with the intention to cause harm or further social, ideological, religious, political or similar objectives, or to intimidate any person in furtherance of such objectives" (White, 2015). In the state of Australia, the cyberattack does not necessarily have to undermine or impair critical infrastructure or engender serious harm for it to be perceived as an act of terrorism. Instead, the view also includes extreme intrusive activities to any electronic system for political purposes, and the intimidation of a government or the general public. This of course diverges from other states' legal classifications of terrorism which necessitates an attack to be executed on an indispensable service, facility or system (Hardy, 2017).

Across the private force/non-state spectrum are a range of actors who are reliant on cyber-based technologies to support their organizational objectives. Often referred to as cyber-aggressors, these actors are prepared to utilize technology as a means to wreak havoc along varying categorized domains (Hardy, 2017). For instance, *Cyberterrorists* can be defined as state-sponsored and non-state actors who participate in cyberattacks to pursue their ideology. Global terrorist organizations, insurgents, the extreme far right and jihadists have utilized the web as a device for planning attacks, radicalization and recruitment, an instrument of propaganda delivery and an avenue to convey their broader message, and overall, for disruptive purposes (Rollins & Wilson, 2007). *Cyberactivists* are individuals who undertake cyberattacks for ideological, philosophical, political or other nonmonetary reasons. This could include someone who attacks a system for personal reasons (a 'classic' hacker), and a 'hacktivist' who undertakes an attack for political reasons. The actions of these actors can range from impeding or denying service attacks and website vandalism, through to undermining government and commercial sector activities (Theohary & Rollins, 2015; Theohary & Harrington 2015; Adams et al., 2021).

Cyberthieves are actors who engage in unlawful cyberattacks for financial gain. This is evident when an organization or individual illegally accesses the technology system to steal, use or sell account numbers, or gain access into a financial account. *Cyberwarriors* are actors or sub-actors of states who develop technology and execute cyberattacks in endorsing a states' strategic objectives (Theohary & Harrington, 2015). These individuals or groups may or may not be acting on behalf of the regime

regarding their target choice, time of attack and variations(s) of cyberattack and, in many instances, are blamed by the host state when allegations are charged by the state that has been attacked. *Cyberspies* attempt to steal confidential or proprietary data used by governments or commercial entities to leverage a competitive tactical, security, economic or political advantage. These actors often work on behalf of foreign government bodies and target government networks, defence contractors and private companies (Henry, 2011).

Other definitional cyber-categories pertain cyberwar, which can be defined as a state-on-state action, and may encompass an armed attack or use-of-force that utilizes cyber activities that 'may trigger a military response with a proportional kinetic use-of-force'. Additionally, Cybercrime includes unlawful system contravention and stealing of intellectual property and other information; it can be economically motivated, and responses are characteristically from the authority of law enforcement agencies. Overall, when unpacking all of these categories, differences in motivation as well as interconnections in intent and approaches of various actors add complexities to response option (Theohary & Rollins, 2015; Theohary & Harrington, 2015; Adams et al., 2021). The threats posed by these cyber-aggressors and the varying modes of attack they undertake are not mutually distinct. For example, a hacker targeting the intellectual property of a corporation may be considered as both a cyberthief and a cyberspy. Further, a cyberterrorist and cyberwarrior may employ different technological capabilities in upholding a states' security and political objectives. Recent reports even suggest that cybercrime has now overtaken the illegal drug trade as a source of backing for terrorist actors, "although there is some confusion as to whether a particular action should be categorized as cybercrime" (Ablon et al., 2014).

Attaining the requisite data pertaining to an actor and their capabilities and intent will continue to be a difficult task as other aberrant variables come into the mix. That is, coupled with the non-state actor inclination to be an early user of emerging technologies, which are often interdependent and encompass vulnerabilities, makes for a multifaceted environment when attempting to devise and orchestrate applicable "operational responses, policies, and legislation designed to safeguard the nation's strategic economic and security interests" (Hardy, 2017;

Theohary & Harrington, 2015). Clearly, secure operations in cyberspace—as well as the global web of information arteries tied to the internet—have become crucial for the sustained operation of the international economy, security and broader stability. As an extraordinary instrument for many purposes, the internet is also susceptible to usurpation by subterranean actors, whether to spread misinformation, disrupt core infrastructure or steal important data. Most of those malevolent activities are undertaken by actors or groups of individuals seeking to enrich themselves or shape public viewpoints. It is increasingly apparent, however, that governmental entities, often working in combination with some of those individuals, are engaging cyber-techniques to undermine their enemies by propagating distrust or incapacitating key organizations or to strengthen their own defences by stealing applicable militarily technological know-how (Adams et al., 2021; Klare, 2018).

While encounters in the cyber domain are often viewed to sit below the level of armed conflict, it is not difficult to envisage future clashes in cyberspace escalating into a fully fledged war. Such scenarios cannot be considered as being farfetched, particularly if cyberattack resulted in the collapse of critical infrastructure, such an electric grid, a banking system or even an electoral result. Moreover, in the event of a crisis or imminent hostilities, cyberattacks could be launched on an enemy's early warning communications and command and control systems, significantly damaging its response capabilities (Futter, 2016). For all of these scenarios, cybersecurity, or the protection of cyberspace from clandestine attack, has become a significant state security focus (Jaikaran, 2018). In this light, cyberspace can be considered as an area that could see introduction of regulatory measures that could bear a resemblance to arms control mechanisms—although explicitly referring to cyberweapons rather than nuclear or conventional munitions. This could lead, for example, to the imposition of formal legal (and cyber equivalent) mechanisms of disarming a first strike (i.e. a digital attack that would impair an adversary's key information systems). This is not a new challenge but one that has become a major concern for international policymakers as technology continues to advance, and the "spill over effect from cyber- to conventional or even nuclear conflict" becomes a distinct possibility (Elliott, 2009).

Artificial Intelligence: The Accelerator

In the context of emerging technologies, it is 'Artificial intelligence' (AI) that has come to the fore in the international public's imagination. While its meaning has changed over time, AI generally refers to a computer system capable of human-level cognition. AI is currently being incorporated into a number of military applications, including intelligence, surveillance, reconnaissance, logistics, cyber operations, command and control, and semi-autonomous and autonomous vehicles (Sayler, 2021). At present, most AI tasks still fall into the narrow category in which an exact task is undertaken, as opposed to those tasks that would entail the replication of human-level intelligence. Given the numerous conceivable applications of AI, it is perhaps misleading at this stage in time to describe AI as a stand-alone capability or one application of technology. In this regard, it is more plausible to look at AI as an "enabler" and refer to systems as being, for example, "AI-enabled financial trading" or "AI-enabled cyber defences" (Franke & Sartori, 2019). However, as it develops, AI could enable new concepts of operations, such as swarming (i.e. cooperative behaviour in which uninhabited vehicles autonomously coordinate to achieve a task) that could present both challenges and opportunities for the U.S. military. Recent news reports and analyses have highlighted the role of AI in enabling increasingly realistic photo, audio and video digital forgeries, popularly known as 'deep fakes'. Adversaries could potentially deploy this AI capability as part of their information operations in a "gray zone" conflict (Sayler, 2020; Wright, 2018).

In building on this above definition, Michale Klare defines AI as a generic term used to describe an assortment of techniques that provide machines with the capacity to "monitor their surroundings in the physical world or cyberspace and to take independent action in response to various stimuli" (Klare, 2018). Heather Roff sees artificial intelligence as a collection of computational and information-processing techniques that is goal-oriented:

> Maybe it's a physical task and it needs robotic manipulation, or maybe it's a cognitive task and it needs planning capabilities or classification capabilities. Whatever the means that it needs to pursue that task, it also has. So,

> the intelligence, how well it appropriately functions and undertakes its goal-directed task. If it doesn't function so well, it's not that intelligent. (Roff, 2019)

As such, when considered in the context of the emerging technologies—such as cyber operations, information operations, intelligence collection and analysis, command and control, and in an assortment of semi-autonomous and autonomous vehicles—the pace at which such devices continue to evolve and incorporate AI applications into their 'performance' will have a marked impact on broader global security, particularly in complicated conflict scenarios.

To provide emerging technologies with the requisite capacity to make autonomous decisions, engineers have developed multifaceted algorithms, or computer-based sets of rules, to oversee their execution. For instance, an AI-aerial drone could be armed with sensors that differentiate and separate adversary tanks from other vehicles in a heated conflict zone and, when the adversary is identified, can delineate on their own accord whether or not to engage with the enemy utilizing onboard missiles. Additionally, AI can also be used in a cyberspace context in which an applicable device can watch and wait for enemy cyberattacks, and counter them with a fusillade of counter-strikes. In the future, AI-invested machines may be authorized to ascertain if nuclear attack is underway and, if so, execute a retaliatory response (Geist & Lohn, 2018). As just one of many future scenarios, AI can be considered an "omni-use" technology with manifold implications for war-fighting and arms control applications (Klare, 2018). Already, intelligent systems are being sought after for the rapidity with which they can identify an approaching threat and their aptitude to estimate the applicable response so as to defuse that threat (indicated above). As tensions between powerful states increase and warfare becomes more apparent, rapid and multidimensional—including being fought in the cyberspace and outer space domains—commanders and policymakers may choose to place ever-greater dependence on intelligent machines for the monitoring and tracking adversary activities and even, initiating apposite counter-responses. That said, while this could engender an advantage on the battlefield, it also

poses numerous concerns, particularly regarding nuclear "crisis stability" (Klare, 2018; Wright, 2018).

Clearly, Artificial intelligence (AI) is a rapidly growing field of technology with significant implications that will, according to some analysts, "revolutionize warfare by allowing military commanders to bolster or, in some cases, replace their personnel with a wide variety of 'smart' machines" (Klare, 2018). AI research is proceeding in the areas of logistics, cyber operations, information operations, intelligence collection and analysis, command and control, and in an assortment of semi-autonomous and autonomous vehicles, and thereby, further intensifying the intersection and cross-over in a variety of sectors (Sayler, 2020; Hruby & Nina Miller, 2021). While AI technology could simplify autonomous operations, lead to more informed military decision-making, and increase the speed and scale of military action, it may also be unpredictable or susceptible to inimitable forms of manipulation.

Despite some policymakers and analysts arguing that the technology will have nominal impact, others believe that AI will have at least an evolutionary—or as indicated above, revolutionary—effect in the execution of war and violence (Sayler, 2021; Hruby & Nina Miller, 2021). The challenges emanating from AI development present a plethora of issues and concerns for policymakers to governance, including the role of government to implement effective oversight of AI development; the ability to attain a workable equilibrium between research and development related to AI and autonomous systems with ethical considerations; the role of the state in defence acquisition reform initiatives that enable military AI development and the balance of commercial and government funding for AI development; the extent to which legislative or regulatory changes are necessary for the integration of military AI applications; the extent to which global governance measures can manage AI competition globally and lastly, workable measures that can mitigate AI technologies with lethal applications falling into the hands of non-state actors (Sayler, 2020; Hruby & Nina Miller, 2021).

The introduction of these and other such weapons on future battlefields will transform every aspect of combat and raise a host of challenges for advocates of responsible arms control. Aside from the above points and more broadly speaking, the use of fully autonomous weapons in

combat automatically raises questions about the military's ability to comply with the laws of war and international humanitarian law, which require belligerents to distinguish between enemy combatants and civilian bystanders. It is on this basis that opponents of such systems are seeking to negotiate a binding international ban on their deployment.

Futuristic Technologies: There Is No End in Sight

While the above discussion has been concerned with emerging technologies, this chapter takes a leap forward in considering those futurists technologies that could further intensify security concerns, as well as their associated debates.

In another generation, future security dimensions in the online world will involve quantum computers using the quantum internet. Using qubits, the quantum internet will rely on quantum key distribution and be unlike the encryption methods of today. The classical internet uses bits in traditional computers, where information is in binary form (either 0 or 1). However, information is stored and transmitted differently in quantum computers, where a superposition of all possible states exists simultaneously (both 0 and 1 at the same time), until measurement takes place. In security terms, the effects of measuring this quantum information means that a third party could no longer covertly read communications between two computers using quantum encryption, without the interception being discovered (O'Dowd, 2019). Concerningly, quantum computers do not only have 'defensive' benefits. These incredibly powerful devices would also be powerful at 'attacking' traditional computers using the classical internet, raising questions over whether cyberattacks will become even more frequent until a quantum internet becomes widely available (perhaps in the form of 7G or 8G).

The timeframe for development of the quantum internet will depend, to an extent, on how long it takes for physicists to increase the distance that qubits can be transmitted, which could be described as being like a process for the teleportation of subatomic particles; experiments have

already begun tests using satellites (O'Dowd, 2019). Given perceptions of the "hegemonic position in all aspects of Internet governance" that the U.S. currently has at its disposal over the classical internet, through its contractual relationship with the Internet Corporation for Assigned Names and Numbers (ICANN) (Davies, 2013), Washington may need to consider what role it would desire to have (or more accurately, have to lose) in administration over a quantum internet. Exercising such control over the classical internet has potential to be a useful tool to have in the arsenal, though one that would not be expected to be used, unless as a last resort in cyber warfare (which would also have 'kinetic' implications for devices using the internet on Earth and in Outer Space). Such a scenario is analogous to nuclear weapons, which serve as a major deterrent, but whose use would cross a threshold that it is not easy to walk back from. The implications of a potential quantum internet will be explored, therefore, as a futuristic technology.

The next "space race" will accelerate investment in technologies that, otherwise, could only be described as futuristic. After decades of collaboration through the International Space Station, the U.S. (with some international partners) is set to explore the closest celestial bodies. In an echo of President Kennedy's 1962 Moon speech outlining what "will be done before the end of this decade" (Kennedy, 1962), which led to Project Gemini and the Apollo programme, President Trump in 2019 set a goal with two five-year intervals to "seek to land on the Moon's South Pole by 2024, establish a sustainable human presence on the Moon by 2028, and chart a future path for Mars exploration" (White House, 2019). The first step is NASA's Artemis programme (NASA, 2022). Meanwhile, the establishment of the U.S. Space Force (USSF) as a new branch of the armed forces, also in 2019 (US Space Force, 2020), acknowledges that assets and technologies used in space will need to be protected from adversaries. India, Russia, Europe and Japan are also pursuing space programmes. Of course, China is pursuing its own space policy, including putting a large space station into the Earth's orbit. While China is sending robotic probes to the Moon and Mars, its plans for future manned missions to these worlds remains opaque. Beijing's response—and the potential for military spending on both sides that will bring forward advances in science and new technologies—may depend on the extent to

which Washington chooses to keep separate the missions of NASA from the USSF.

Meanwhile, the so-called privatisation of space—an emerging industry—will make it more viable for smaller countries to purchase some of the services that provide the benefits of a space programme, without the long-term R&D (capital expenditure) costs. As an example, Luxembourg has partnered with companies that are exploring the option of asteroid mining, predicted to produce the world's first trillionaires (O'Dowd, 2018). Indeed, in 2017, Luxembourg became only the second country (after the U.S. in 2015) to offer a legal framework on outer space resources. Article 1 of Luxembourg's Law on the Exploration and Use of Space Resources simply states that: "Space resources are capable of being owned" (Luxembourg Space Agency, 2017). Another section of the law clarifies that ministerial authorization can be provided to public companies or corporate partnerships limited by shares, private limited liability companies of Luxembourg or European companies with offices registered in Luxembourg (Luxembourg Space Agency, 2017). In addition, given the failure of state party ratification of the 1979 Moon Agreement, which would have governed all celestial bodies (including asteroids), and the recent introduction of President Trump's 2020 Executive Order on Encouraging International Support for the Recovery and Use of Space Resources, which opposes consideration of the Moon Agreement as customary law, the competition for space exploration may, therefore, diverge in two phases: at first, peaceful exploration of celestial bodies on behalf of all humankind, which carries prestige; but later, competition among states for resources, in partnership with stock companies (a phenomenon that made possible the financing for colonial expeditions and later brought enormous wealth to a small number of countries, reshaping the global political order).

Lastly, directed-energy weapons (DEWs). DEWs, such as high-energy lasers, low-energy lasers and high-power microwaves, use "quantum behaviours occurring on the subatomic scale to convert energy from one form into another form for exploiting a vulnerability in a target to cause disruption, damage, or destruction". DEWs can cause temporary disruption or catastrophic damage, targeting aircraft, spacecraft, missiles, electronic systems and components, as well as human beings (e.g. inflicting

heat or vision discomfort, or injury onto pilots). As a practical application, current designs of DEWs offer "the opportunity to realise cost-savings from using repeatable bursts of energy instead of expensive rounds of propellant filled-missiles and artillery cartridge. A laser shot may cost about $1 per firing compared to hundreds of thousands of dollars for a missile". Therefore, the costs of defending an asset would be significantly smaller than the costs of attacking it. However, the DEW launcher systems are expensive and will require further investment for this development to become widely accessibly in military operations. For example, some weapons, such as hypersonic missiles and Inter-continental Ballistic Missiles (ICBMs), are already designed to withstand extreme temperatures, though they may be vulnerable to future DEW generations that may be able to be used for offensive purposes, such as neutral particle beam weapons which would cause explosive fission on targets at near light-speed. Thus, DEWs could also be a "game-changer for defending against high-speed missiles, remotely piloted aircraft and swarms of drones", though their introduction on the battlefield would require other considerations, such as collateral damage risks (Spencer, 2020).

Conclusion

Emerging technologies are an indubitable driver of (in)security in the information age. As the capacity to construct and use new proprietary technologies has become a contested source of economic strength and military power, access to such innovations may disrupt global or regional security architectures. While the dangers of digital-enabled systems and devices has come to fore in recent times, analysts, policymakers, civil society groups, commercial sector entities, and defence and intelligence officials will be compelled to address the threats posed by advanced weapons technologies and formulate international provisions to regulate or mitigate their use. This chapter provided an overview of the various definitions and security ramifications of four critical emerging technologies: drones, lethal autonomous weapons systems (LAWS), cybersecurity, artificial intelligence (AI). While each emerging technology poses distinct challenges for global security, they can also be considered as a set of

interrelated challenges—with AI as a particular enabling capability. Finding viable approaches for the management of weapons systems, including potential options for their governance, remains vital for technologies that are emerging in the twenty-first century, as well as disarmament and arms control issues in continuation since the twentieth century.

Following the onset COVID-19 pandemic, the relative decline of multilateral institutions has added further strain to diplomacy and international negotiations. In this context, the chapter has highlighted the growing risks associated with conventional and unconventional weapons, where there has been relative inaction on enacting regulations across the broader milieu of international bodies. The need to provide guardrails for disruptive emerging technologies and their war-fighting and arms control applications—AI, autonomous weaponry, uninhabited vehicles and cyberwarfare—as they transition into military systems, presents urgent challenges for global security (Klare, 2018). As the weaponization of critical technologies continues, it will be important to reconsider how current protocols and models may be utilized as the foundation for additional methods envisioned to regulate entirely novel types of armaments.

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4

Digital 'Natives': Unsettling the Colony Through Digital Technology

David Pollock, Suzanne Ingram, Serene Fernando, and Peter Phipps

Introduction

Aboriginal and Torres Strait Islander peoples have leveraged technologies to enhance transnational knowledge networks in the resistance and survival of the violent invasion and occupation of Indigenous lands since the British Empire commenced its colonising project on these shores two-and-a-half centuries ago. First Peoples'[1] survival and flourishing is in no small part owed to the ingenuity and strategic accomplishment of such engagements. The development of the internet (and other technologies

[1] 'First Peoples' is the terminology we use to describe Indigenous Peoples from across the globe. The capitalisation of 'Peoples' denotes these as Indigenous polities, as would the term 'First Nations'. We have chosen 'Peoples' rather than 'Nations' because some people object to conceptualising Indigenous polities as nations, and this terminology can also be problematic for displaced peoples. We use 'Aboriginal and Torres Strait Islander peoples' to describe members of First Peoples of the continent of Australia.

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reliant on digital connectivity) heralded change for so many aspects of the human experience, particularly socio-political organisation, becoming a catalytic engine for globalising processes. It has also proven complex, generating both new colonising forms alongside anticolonial and decolonial opportunities.

This chapter showcases two examples of First Peoples' strategic engagements with digital technologies, particularly social media: Bla(c)k Lives Matter (BLM) and the politics of recognition. It seeks to examine the socio-political efficacy of digital technologies as organising tools, and consider the impacts of this on Indigenous public spheres and identities. We see these examples as fitting well within the network conceptualisation, *constellations of co-resistance* (Simpson et al., 2018). While noting this activist efficacy and the capacity to foster transnational solidarities, we are aware of the conflicts around Indigenous identities posed by digital spaces, in particular, the expansive forms of racism they foster (Carlson & Frazer, 2018a; Ingram, 2021, 2022). The abstracting processes of digital intensification present both opportunities and threats to Indigenous kinship and land-based identities.

We contribute this chapter in a book we anticipate will make a critical contribution to the field of Global Studies and rearticulate the magnitude and implications of Indigenous global connectivity. In the persistence against settler-colonialism, First Peoples have acted across the significant domains of our/their times: in local governments, organisations, businesses and publics through to global institutions. As the locus of power shifted from Church and Empire to the modern international system, First Peoples deployed strategies of rights and identity beyond the nation-state.[2] There have been various attempts to share strategies and develop a new domain of global Indigenous identity predominantly through international legal frameworks (Smith, 1999, Watson, 2014).[3] Global Studies has encountered healthy criticism, particularly from postcolonial theorists, that its orientation has at times been "less than global" (de Sousa Santos, 2014; Grosfoguel, 2005). The erasure of First Peoples'

[2] Examples of such strategies range from petitioning the British Monarch or Pontiff through to the International Labour Organization (ILO) in the 1920s.

[3] This has shifted from evolving ILO conventions through to the 2007 *UN Declaration on the Rights of Indigenous Peoples* (Nakata, 2001; Stewart-Harawira, 2005).

contributions to globalisms is particularly egregious considering that Indigenous rights movements spawned some of the international social movements[4] that (Critical) Global Studies emerged in response to namely, The Zapatistas, a movement of mostly Indigenous Maya peoples in Chiapas, Mexico (Steger & Wahlrab, 2016). In fact, the Zapatista's 'Net War' against the Mexican government in the 1990s is a seminal example of the kind of anticolonial digital engagements we showcase in this chapter. Indigenous thought-leadership and activist wisdom were integral to the development of Critical Global Studies (Steger & Wahlrab, 2016). We hope this chapter makes a small contribution to a more accurate history of the field.

We introduce two examples from an abundance of online engagements and movements that First Peoples across the world have successfully prosecuted or are still currently undertaking. Some receive more exposure and reach than others.[5] Whether widely recognised or more discreet, these digital engagements and the broader social movements they sometimes precipitate are contributing to the emergence of globalisms that have Indigenous futurities at their core. They envision a world in which just and sustainable relationalities are global norms, offering possibilities of prosperity and regeneration of life-systems that benefit the world. This is a feat to be recognised and celebrated in a time where the world seems desperately short of promising possibilities.

Indigenous Public Spheres

Research on First Peoples' digital activisms in Australia has featured prominently across Australian Indigenous Studies, Communications and social sciences. A focal point of this research has been the role of the internet in providing a platform for First Peoples' media production and sourcing. Some leading scholars in the field attribute the flourishing online Indigenous media landscape in Australia to the racism of legacy

[4] Particularly, the Global Justice Movement and World Social Forum.

[5] Some of the most notable of these include IdleNoMore, NoDAPL, SOSBLAKAUSTRALIA and MMIW.

media as a patterned relationship between itself and Aboriginal and Torres Strait Islander peoples mired by misrepresentation and distrust (Carlson & Frazer, 2018a; McCallum & Waller, 2017; Meadows, 2005; Pollock, 2019; Waller et al., 2015). However, there is inadequate analysis of Aboriginal people's communication needs and the distorted assumptions of text and talk (van Dijk, 1993; Ingram, 2022).

The role of the Fourth Estate is to hold power to account through critical interrogation and transparency, primarily the power of the State. Too often, legacy media in Australia ignored human rights abuses perpetrated by the State or settler-institutions against Aboriginal and Torres Strait Islander peoples, or focused on scandalous 'revelations' as they arise in settler consciousness.[6] The latter was usually accompanied by either culture war posturing of 'tough love' versus short-lived 'benevolent outrage' or uncritically relaying the State's response. There are few communities the Fourth Estate has failed more than Aboriginal and Torres Strait Islander peoples, and certainly none so consistently for so long (Meadows, 2005).

A number of scholars utilise the Habermasian-inspired concept of the Indigenous public sphere to interrogate how First Peoples' online and media activity contributes to the consolidation of social and political movements in Australia (Latimore et al., 2017; Meadows, 2005; Minestrelli, 2014; Pollock, 2019). In Habermas' conceptualisation the media and public sphere are inseparable. Habermas' emphasis on the role of the media is unsurprising considering his location in the Frankfurt School.[7] One of the Frankfurt School's most significant progenitors, Gramsci, understood the media to be the "most dynamic part" of ideological structure, responsible for the production of (cultural) hegemony (Meadows, 2005, p. 36). Here, then, we can locate much of the media

[6] It should be noted this is not a unidirectional process with media only responding to the concerns of consumers. The media plays an active role in shaping its consumers' concerns (Herman & Chomsky, 1988).

[7] Habermas was particularly interested in the ways the progression from 'old' to 'new' social movements were generating new modalities within public spheres. 'Old' social movements were those responding to the tensions between labour and capital. 'New' social movements were conceived as those concerned with 'non-materialist' structures of domination: patriarchy, racism, etc. The authors acknowledge that these structures are also deeply wedded to material injustices (Edwards, 2004).

(including social media platforms) that aligns with the ideological order of the neoliberal State and market—as something other than atomised, independent and impartial: the critical infrastructure through which settler-colonialism (as ideology) is (re-)produced. Settler-colonialism generates both material and ideological violence, uniting international struggles of resistance over both identity and material well-being. Some scholars have addressed the question of how Indigenous public spheres function as spaces of colonial contestation.

Minestrelli adopted Fraser's approach to understanding the Indigenous public sphere in Australia, situating this in dialectical relation with the "mainstream" (settler) public sphere (Minestrelli, 2014). Fraser, a philosopher of justice, coined the concept of *subaltern counterpublics*, derivative of the public sphere, as means of conceptualising how counter-discursive spaces develop through the agency of members of oppressed groups (Fraser, 1990). In Ministrelli's application, this space of Indigenous counter-discursive production is also understood as a sovereign space; an important conceptual addition because it allows us to move beyond the ways in which communities of resistance are constituted, to how sovereign communities (polities) are (re-)built. This is not to say that these are segregated spaces. Non-Indigenous people participate in the Indigenous public sphere similarly to how Indigenous people participate in the 'mainstream' public sphere. What makes the Indigenous public sphere Indigenous is that it is constructed, maintained and, importantly, regulated by First Peoples. As Meadows describes, Indigenous public spheres can be defined as

> discrete formations that exist in a unique context as the product of contestation with the mainstream public sphere. While they operate within a domestic context, it is their 'indigenousness' that is the defining characteristic. (Meadows, 2005, p. 37)

There is a socio-political heterogeneity within the Indigenous public sphere that those outside of it too often overlook. The digital space, particularly that part occupied by corporate social media platforms, has fostered the establishment of a subsphere of sorts, denoted by decentralisation, democratisation and participation. As Carlson and Frazer's (2018)

multi-method qualitative study found, Aboriginal and/or Torres Strait Islander peoples have far greater rates of social media uptake and usage than their settler counterparts. Furthermore, 79% of survey respondents stated they were politically active online (Carlson & Frazer, 2018a). In these digital spaces, perhaps more than elsewhere, grassroots discussion, debate and mobilisation have intensified. "Communities of practice" are another way such networks have been conceptualised, wherein spaces are consolidated and identities patterned through shared participation in specific socio-political practices (Pink et al., 2016). This co-constitutive space of identity construction functions through senses of both shared struggles and 'oppositional' antagonisms. Meadows underscores the centrality of Indigenous public spheres in the construction of Aboriginalities. Indigenous public spheres, he states,

> enable indigenous (sic) people to deliberate together, to develop their own counter-discourses, and to interpret their own identities and experiences. The deliberations are then able to interact with the wider public sphere—in theory. This highlights the importance of seeing the notion of Aboriginality, or identity formation, as a dynamic process which takes place through dialogue. (Meadows, 2005, p. 38)

This dynamism within the Indigenous public sphere is reflective of its greater form, being perpetually redefined through content and medium. It is a space continuously reshaped through a mapping onto an imagined unfolding present.

First Peoples' political expression within Indigenous public spheres often translates directly into activities in institutions and physical spaces. This occurs across a multitude of forms and is perhaps most acute in protest, social movement activity or other mobilisation around rights-claims. The examples offered later in this chapter squarely fit within this frame. These forms of mobilisation are typically reactive yet calculated, seizing upon temporal (and sometimes spatial) opportunities to draw attention to particular injustices and rights-transgressions, often from the settler-state. These kinds of activities have been elsewhere described as 'the politics of embarrassment': delegitimising the State and swaying international sentiment and/or that of the citizenry (Beckett, 2014).

However, this kind of activity is not limited to fleeting reactive expression. Pollock's (2019) research found Indigenous activists leveraged digital technologies to generate and sustain longer campaigns to great effect. These programmes rapidly spread across geographies with the assistance of digital technologies, mobilising other activists and supporters from relatively diverse backgrounds and perspectives, invigorating spaces within the Indigenous public sphere (Pollock, 2019).

Latimore et al. (2017) considered the strengths and limitations of the concept of the Indigenous public sphere to support the production and implementation of software—the 'Wakul app'—aimed at better resourcing a media landscape shifting to increasing Indigenous representation. This work is an excellent review of scholarship on Indigenous public spheres in Australia, particularly through its presentation of a trajectory of conceptual debates, alongside consideration of Indigenous representation across the media landscape (Latimore et al., 2017).

Few scholars have considered the intersection of Indigenous activism, identity-making and social media engagement more thoroughly than Carlson and Frazer (2018a, 2018b, 2020), (Carlson et al., 2017; Frazer et al., 2022). Their 2021 book, *Indigenous Digital Life: The Practice and Politics of Being Indigenous on Social Media*, consolidates much of this research. Carlson and Frazer examine the relationship between the BLM movement (largely emergent from the US) and what they identify as Aboriginal Lives Matter,[8] mediated through social media, paying particular attention to the impact emotional expression plays in online activism (Carlson & Frazer, 2021). Through their analytic of emotion as a movement-building dynamic, they interpret the solidarities between First Nations people in Australia and African American communities in the US as a recognition of shared experience (Carlson et al., 2017). Aspects of these and other international/global experiences will now be explored through two examples of activist mobilisations utilising digital technologies: the politics of recognition and Bla(c)k Lives Matter.

[8] Aboriginal Lives Matter as a banner for movements concerned with justice for Aboriginal and Torres Strait Islander peoples killed in custody.

‘Recognition’ in the Australian Constitution

> Man is human only to the extent to which he tries to impose his existence on another man in order to be recognized by him. (Fanon, 1967, p. 216)

In the latter half of the twentieth century, the politics of recognition became a dominant modality for addressing injustices and disparities between groups. One method of materialising what were often seen as abstract processes was to recognise groups’ historical experiences and rights-claims at law, including within sites of ‘ultimate’ legal authority: constitutions of nation-states. These politics considered the experiences and situations of social and political groups, ethnic, gendered, and sexual minorities among others. First Peoples across many settler-states featured in such processes. The substance and effect of instances were as diverse as the groups seeking, or otherwise being considered in processes of, recognition: ranging from limited rhetorical acknowledgements to substantive enshrinement of rights and processes for ensuring they are upheld. This diversity of contexts, applications and efficacy has engendered the politics of recognition (Povinelli, 2002; Pollock, 2019) with contention; particularly so in Australia.

Proposals to “recognise” Aboriginal and Torres Strait Islander peoples in the Australian Constitution have been part of the (post-)election promises of Prime Minister Anthony Albanese and his six predecessors (Fitzpatrick, 2016; Gordon & Hunter, 2016; Twomey, 2014).[9] These national leaders disagreed on the form ‘recognition’ should take, as prominent proposals concerning process and form shifted considerably in the fifteen years they have featured in mainstream politics. Typically, conservative political leaders favoured symbolic (only) ‘recognition’. The raising of the issue of constitutional recognition of Aboriginal and Torres Strait Islander peoples first occurred in the early 1980s, with the Senate Select Committee on Constitutional and Legal Affairs being instrumental at that time. Proposals for recognition in this early period would be considered “radical” by the standard of mainstream contemporary debates,

[9] Prime Ministers John Howard, Kevin Rudd, Julia Gillard, Tony Abbott, Malcolm Turnbull, and Scott Morrison.

including recognition of rights to lands, political representation, employment, cultural heritage, and reparations (Government of Australia, 1988). These debates were influenced by another settler-state and erstwhile British colony, Canada, where constitutional recognition of First Nations Peoples occurred in 1982 (Government of Canada, 2019). More recently and locally, Aboriginal and Torres Strait Islander peoples have been 'recognised' symbolically—actually acknowledged—in the constitutions of all Australian states.[10] In line with the form undertaken by Australian states, 'popular' proposals for 'recognition' at the federal level between 2007 and 2016 were mostly symbolic. In 2012, *Recognise*, the campaign to promote constitutional recognition of Aboriginal and Torres Strait Islander peoples, was given a financial kick-start with a $10 million grant announced by Prime Minister Julia Gillard in her Closing the Gap speech (Parliament of Australia, 2012; Reconciliation Victoria, 2015).[11] *Recognise* was itself a rebranding of the *YouMeUnity* campaign run by *Reconciliation Australia*. Recognise was supported by a further $15.7 million in public funding until 2016, and $160 million was earmarked in the 2016 PEFO[12] as a one-off payment to support the referendum through which constitutional recognition was to be decided upon (Groom, 2016; Morgan, 2016a).

Recognise targeted the moral sensibilities of settlers. It did this through bigbudget marketing campaigns promoting the idea that the overwhelming majority of Aboriginal and Torres Strait Islander peoples were supportive of (symbolic) constitutional recognition. It also asserted that constitutional recognition would have material, beneficial impacts on communities while progressing Australia 'further toward reconciliation'. In digital spaces, however, the rhetoric did not seem to track with reality, as demonstrated by *Recognise's* besieged social media presence. The ideas *Recognise* was promoting were not only and predictably opposed online

[10] Constitutional recognition of Aboriginal and Torres Strait Islander peoples occurred in Victoria (2004), New South Wales (2010), South Australia (2013), Western Australia (2015), and Tasmania (2016).

[11] Funding occurred through the *Act of Recognition*, assented to 27 March 2013 (Parliament of Australia, 2013).

[12] Pre-election Economic and Fiscal Outlook (PEFO) is a budgetary reporting activity, undertaken by the Federal Treasurer and their department, released just prior to a federal election.

by overtly racist settlers, but also by many Aboriginal and Torres Strait Islander social media users.

By 2014 it was becoming clear, even within the broader 'mainstream' public sphere, many Aboriginal and Torres Strait Islander peoples were dissatisfied with or unsupportive of *Recognise* and/or the prevailing conceptualisations of constitutional recognition. Despite the conservative government largely supporting the campaign, and particularly the limited conceptualisation of symbolic 'recognition', Yamatji, Wongi and Noongar MP, Ken Wyatt[13] conceded on ABC's *Lateline* on 27 October 2014 that significant resistance was coming from "our own people [Aboriginal and Torres Strait Islander peoples] who want Treaty or sovereignty" (Lateline, 2014). Prior to Wyatt's interview, numerous groups and pages on social media[14] had been running unofficial, largely financially unsupported 'no' campaigns, in part responsible for undermining *Recognise*. Their collective criticism of the politics surrounding constitutional recognition, particularly who they perceived as excluded from these politics, garnered significant support.

Recognise collapsed in 2017, succumbing to the efforts of Aboriginal and Torres Strait Islander peoples who either focused their energies on delegitimising the campaign or successfully cajoled the settler-state beyond the politics of symbolic 'recognition' into state-based entreatment processes—as was the case in Victoria, before other states followed.[15] The *Referendum Council*, the entity tasked with getting constitutional recognition back on track, had to play catch up with these more tangible politics in order to resurrect constitutional recognition on the national agenda.

[13] Hon Ken Wyatt AM, MP was the Chairman of the Joint Select Committee on Constitutional Recognition Relating to Aboriginal and Torres Strait Islander Peoples and later the Minister for Indigenous Australians (2019-2022).

[14] Groups and pages on Facebook included *Blackfulla Revolution, Anti-Recognise Campaign, Vote No to Constitutional Recognition, Sovereign Union, We Oppose Recognition, Say No To Constitutional Recognition* among others.

[15] The Victorian Treaty process emerged from a meeting called by Aboriginal Victoria—the state Indigenous affairs department—to discuss proposals for constitutional recognition with Aboriginal and Torres Strait Islander peoples in Victoria in February 2016. Attendees voted near unanimously in rejecting constitutional recognition, demanding entreatment instead (Morgan, 2016b).

Following the collapse of *Recognise*, a number of organisations tasked with progressing constitutional recognition were also disbanded. Both the *Expert Panel*[16] and *Joint Select Committee* were replaced in function by the *Referendum Council*. The *Referendum Council* was established and constituted by Prime Minister Malcolm Turnbull and Leader of the Opposition, Bill Shorten, on 7 December 2015. The *Referendum Council* was tasked with undertaking more meaningful consultation with Aboriginal and Torres Strait Islander peoples after it was made clear many did not support constitutional recognition (in a symbolic form).

* * *

The Referendum Council's approach to democratising the discussion of constitutional recognition was to run what it claimed were a series of participatory forums determined under the umbrella of deliberative democracy. These took the form of thirteen regional dialogues consisting of approximately hundred people at each. Most attendees were invited by the Referendum Council or through regional structures like land councils (Referendum Council, 2018).[17] From these regional dialogues, participants were elected to represent geographic areas at the National Constitutional Convention (NCC), along with *Referendum Council* staff and affiliates, held at Yulara (NT) in 2017.

The NCC was an important achievement in that it brought together Aboriginal and Torres Strait Islander peoples from across the continent to convene in a decision-making process.[18] This was all the more impressive when it was considered by many to be an under-resourced and hasty process (Pollock, 2019). However, it was not without significant

[16] Expert Panel on Constitutional Recognition of Indigenous Australians.

[17] The Referendum Council arrived at a formula for the composition of dialogue attendees: 60% Traditional Owners, 20% representatives of community organisations and 20% key individuals (Referendum Council, 2019).

[18] This was a rare opportunity following the dismantling of ATSIC and the defunding of NCAFP. The Aboriginal and Torres Strait Islander Commission (ATSIC) was an Australian government structure to represent Aboriginal and Torres Strait Islander peoples on issues impacting their lives (1990–2005). National Congress of Australia's First Peoples (NCAFP) was another (corporate) structure established to act as a representative forum for Aboriginal and Torres Strait Islander peoples (2010–2019).

criticisms. Some attendees walked out of the convention. They and others reported that the process was less democratic than hoped, believing there was a predetermined position that the *Referendum Council* and other instrumental actors cajoled attendees towards. Despite this criticism, and perhaps in part because of it, the *Statement from the Heart*—the articulation of the NCC's position—sought a constitutionally enshrined Voice to Parliament, treaty-making, and truth-telling processes. This suite of engagements was a far more substantive approach to recognition than the mostly symbolic proposals that had dominated debates of recent years.

The desired engagements articulated in *The Statement from the Heart* have gained significant support within the broader Australian electorate. There are, however, key constituencies who oppose, to varying degrees, the proposal and the process through which it was decided. Most significant among them is a considerable number of Aboriginal and Torres Strait Islander people who still resist the idea of constitutional recognition generally, and others wary of the disproportionate attention given to the Voice to Parliament at the expense of processes seen as better placed to deliver tangible change and recognition of Indigenous rights, including the right to self-determination (self-government). Some of the latter support the Australian Greens' proposal to resequence the order of 'Voice, Treaty, Truth' to 'Truth, Treaty, Voice', perhaps from suspicion that truth and treaty were only packaged together with the Voice to Parliament for it to be supported at the NCC; and the fear these other processes will be left by the wayside if the Voice to Parliament is established first (The Australian Greens, 2022). *The Statement from the Heart* and its proponents also face dissent from conservative Indigenous and non-Indigenous voices who have rejected the need for all elements or advocated for a legislated Voice to Parliament/Government rather than a constitutionally enshrined one (Visentin, 2022).

Over the past decade, those without a platform granted by the various settler-state-sponsored apparatuses responsible for promoting constitutional recognition have turned to social media to voice criticism and mobilise opposition, building digital movements with participants across the continent. The demise of *Recognise* indicated the success of such mobilising. In a complex set of circumstances, it was some of these same

activist networks that helped make the establishment of the *Referendum Council* possible. Protesters who had organised through digital networks then physically mobilised for a meeting at Kirribilli House[19] in 2015. The meeting was called by then Prime Minister Tony Abbott and his Indigenous Affairs Minister Nigel Scullion. Forty invitees attended, most of whom were high-profile Aboriginal and Torres Strait Islander peoples involved in progressing constitutional recognition (Australians for Native Title and Reconciliation, 2015).[20] The meeting was to chart a pathway to 'recognition'. When protestors arrived en masse, including on boats in Sydney Harbour, proclaiming 'no consent!', it was overwhelmingly clear that symbolic 'recognition' was dead in the water (Pollock, 2019). This gave the opportunity for some attendees to make the case for establishing a consultative process with Aboriginal and Torres Strait Islander communities exclusively.

Some digital networks continue to voice opposition to the Referendum Council's legacy today. While that may seem opaque and/or contradictory to some, there has been a clear trajectory in the way these digital activists have at times congealed into more recognisable movements: at pivotal moments in debates and processes for constitutional recognition. Time and again, these networks have pushed for modes of recognition they see as genuine, through which the settler-state and Australian society will recognise them as members/citizens of sovereign Peoples (polities) whose Indigenous rights, including the right to self-determination (self-governance) are inherent. Paradoxically, this has often been through a politics of refusal.[21] These forces are largely responsible for moving debates on recognition of Aboriginal and Torres Strait Islander peoples further

[19] Kirribilli House is the official 'second residence' of Australian Prime Ministers, located in the Sydney Harbour-side suburb of Kirribilli.

[20] Attendees: Djapirri Mununggirrtj, Sean Gordon, Rachel Perkins, Denise Bowden, Selwyn Button, Jason Mifsud, Tanya Hosch, Ngiare Brown, Samuel Bush-Blanasi, Noel Pearson, Joe Morrison, Kenny Bedford, Megan Davis, Bruce Martin, Lester Irabinna Rigney, Ken Wyatt MP, David Ross, Charlee-Sue Frail, Richie Ah Mat, Gail Mabo, Djawa Yunupingu, Pat Anderson AO, Aden Ridgeway, Shannan Dodson, Shane Duffy, Kirstie Parker, Les Malezer, Josephine Cashman, Mick Gooda, Tom Calma, Geoff Scott, Marcia Langton, Jill Gallagher, Patrick Dodson, Nova Perris, Warren Mundine, Leah Armstrong, Pat Turner, Justin Mohamed.

[21] These instances of Indigenous refusal were often conducted in a "pragmatic" modality rather than the "comprehensive" refusal most often written about in the North American Critical Indigenous Studies literatures (Pollock, 2019).

towards substantive forms, although this is seldom credited by observers and participants in the politics of recognition in Australia. While the struggle over constitutional recognition is many years old, it is still uncertain if, when and how it will be resolved.

Bla(c)k Lives Matter

We would like to acknowledge the families of Tanya Day, Wayne Fella Morrison, and David Dungay Jnr for their tireless efforts to secure justice. We write this section of the chapter in solidarity with them and all other families whose loved ones have been killed at the hands of the settler-state.

Colonial policing played a significant role in early globalisation. Policing produced networks of influence between imperial metropoles and colonies, and inter-imperial connectivity (MacKenzie, 1991). In the fledgling nation of the US, the rapid growth of early policing forces is traceable to the exercise of violence required to maintain slavery (Lepore, 2020). The institution of policing, alongside paramilitary and vigilante organisations, has been the violent vanguard of the settler-colonial project in Australia (Anderson & Killingray, 1991).[22] For nearly two centuries, policing organisations of Australia and its antecedent colonies have been instrumental in dispossessing Aboriginal and Torres Strait Islander peoples—of our/their families, lands, resources, languages, cultural practices, and lives. Statistically, Aboriginal and Torres Strait Islander peoples are today the most incarcerated people in the world (Russell & Cuneen, 2018). The violence of policing enabled and maintains the theft of Indigenous territories across the continent, an illegal transfer of wealth that buttresses the current state of existence for millions of settlers who presently occupy them. These are the consequences of what Wolfe diagnosed as 'the logic of elimination': a sometimes genocidal but always violent impulse that underpins settler-colonists' insatiable desire to steal and

[22] Early policing units in some Australian colonies have also been characterised as "para-military policing", such as Mounted Police and Native Police units (Nettelbeck & Ryan, 2018; Ryan et al., 2022).

desecrate Indigenous lands (Wolfe, 2006). Such territorial theft is what Said identified as an act of "geographical violence" (Young, 2001, p. 20); settler-colonialism's irreducible element.[23]

In 1991, the Royal Commission into Aboriginal Deaths in Custody (RCIADIC) handed down its findings along with 339 recommendations aimed at curtailing the then alarming rates of Aboriginal and Torres Strait Islander peoples killed in the custody of police or corrective services (Commissioner Elliott Johnston, 1991). The RCIADIC was instigated because of the activism of the family of John Pat—among other families—who, at sixteen years of age, was beaten to death by four off-duty police officers in Roebourne (WA) in 1983.[24] The RCIADIC was to examine the cases of forty-four Aboriginal and Torres Strait Islander people killed over a nine-and-a-half-year period before it was revealed there were ninety-nine 'applicable cases'.[25] In the 30 years since handing down its findings, over 500 Aboriginal and Torres Strait Islander peoples have been killed in custody. It has been noted that Royal Commissions into policing in Australia have been ineffectual at achieving "their objectives, recommendations or outcomes" (Beckley, 2013, p. 46). Considering RCIADIC's recommendation 92 (imprisonment of Aboriginal and Torres Strait Islander peoples should be a last resort) and the current state of hyperincarceration, it is difficult to contend the RCIADIC is exceptional.[26]

Like John Pat's family, many others of those killed in custody never ceased struggling for justice. In Minneapolis on 25 May 2020, George Floyd was murdered by Derek Chauvin while three of his fellow officers stood by as Floyd pleaded, "I can't breathe" (McGreal et al., 2021). In

[23] For example, the range of settler-colonial policing strategies includes co-opting First Peoples into their ranks such as the notoriously brutal Native Mounted Police (Rowse and Waterton 2020).

[24] The four police officers were each acquitted of manslaughter by an all-White jury before returning to their duties (Olive, 2021).

[25] There were another 25 such killings that were deemed to be beyond the Commission's mandate.

[26] In 2018, Deloitte Access Economics was commissioned to review the implementation of recommendations from the RCIADIC. They found that 78% of recommendations were fully or mostly implemented; 16% partially implemented; and 6% not implemented (National Indigenous Australians Agency, 2022). This report was labelled a "white wash" by many advocates, activists, and scholars, many of whom argue governments have failed to implement more than a third of the recommendations, with the other two-thirds being poorly or partially implemented (Carlson & Frazer, 2021).

Australia, those words were heard by many as echoing Dunghutti man David Dungay Jr., who said the same twelve times, as he was restrained and killed by five corrections officers at Long Bay Correctional Centre on 29 December 2015 (Allam, 2021; Davidson, 2020). The Deputy State Coroner, Derek Lee (2019) found David died of cardiac arrhythmia, resulting from positional asphyxia incurred during the prone restraint applied by guards because he refused to stop eating biscuits. The Dungay family successfully mobilised support from legal experts, politicians, and many others to progress David's case. They garnered significant publicity and support for their campaign for justice over the 2020/2021 period through BLM rallies in Sydney and across the continent. The Dungay family are still fighting, taking their struggle to the United Nations Human Rights Committee[27] after the Australian criminal justice system[28] denied them justice, as it has for so many other families.

Wayne Fella Morrison, a Wiradjuri, Kookatha and Wirangu man, died in the Royal Adelaide Hospital on 26 September 2016 from reasons including restraint asphyxia (Rule, 2019). Mr Morrison was pulled unconscious from a prison transport vehicle after having been wrestled to the ground by twelve corrections officers, restrained by both his wrists and ankles, and covered in a spit hood. Mr Morrison was on remand at Yatala Prison, not having been convicted of any crime (Kurmelovs, 2021). Mr Morrison's family have been fighting for abolitionist justice ever since through legal redress, advocacy, activism, academia, and community organising, much of which has been driven through social media engagement. The inquest into Mr Morrison's death was frustrated by the refusal of corrections officers to testify in regard to the events that took place in the prison van (McQuire, 2021).[29] Alongside their struggle for truth, a significant focus of the family's campaigning has been banning the usage of spit hoods by police and corrections officers. 'Fella's Bill', legislation prohibiting the use of spit hoods, passed unanimously through the upper house of the South Australian parliament on 22 September 2021. On the

[27] Geoffrey Robertson QC and Jennifer Robinson are representing David's mother, Leetona Dungay, in her pursuit of complaint (Doughty Street Chambers, 2021).

[28] In this instance, the New South Wales Coroner's Court.

[29] There were approximately three minutes inside the van which could not be accounted for in CCTV footage.

day, Mr Morrison's sibling—a driving force behind the campaign for justice—stated, "today, we're not seen as just grieving families without power or angry activists, we're actually seen as changemakers with strategy and perseverance… our brother's life mattered enough to cause literal, legislative change for all of South Australia" (Silva, 2021). The campaign to ban spit hoods has been extended nationally by a broad coalition of actors.[30]

Mr Morrison's family are not alone in successfully campaigning to reform law and carceral practices that contribute to deaths in custody. In August 2019, the Victorian government announced its intent to decriminalise the offence of public drunkenness, 28 years after this was recommended by the RCIADIC.[31] Public drunkenness is an offence often enforced with discretion and discrimination. The Victorian Police Law Enforcement Assistance Program (LEAP) database reveals that Aboriginal and Torres Strait Islander peoples in Victoria accounted for 6.5% of all public drunkenness offences whilst comprising just 0.8% of the Victorian population (Wright, 2021). The Victorian government was pressured to introduce and pass the bill[32] by a campaign directed by the family of Yorta Yorta woman, Tanya Day. On 5 December 2017, Ms Day was taken to Castlemaine police station after falling asleep on a train during her journey from Bendigo to Melbourne, subsequently arrested and detained for public drunkenness. Police failed to follow protocol for checking Ms Day's well-being while she was in a holding room, where she sustained head trauma after falling. She died seventeen days later at St. Vincent's Hospital in Melbourne after having been flown from Bendigo Hospital (Percy, 2020). While the coroner, Caitlin English, found police negligent and in breach of their own protocol for checking on Ms Day's well-being, she stopped short of finding this a manifestation of systemic

[30] Within this coalition are groups including Jumbunna Institute for Indigenous Education and Research, The #BandSpithoods Collective, Change the Record, and proponents of similar legislative reform at the national level including federal senator and Gunnai and Gunditjmara woman, Lidia Thorpe (Knowles, 2021).

[31] Of the 99 cases examined by the RCIADIC, 35% of individuals detained by police were alleged to be intoxicated in public (Victorian Aboriginal Legal Service, 2022).

[32] *The Summary Offences Amendment (Decriminalisation of Public Drunkenness) Bill 2020* passed on 19 February 2021.

racism within the force.[33] Coroner English found "unconscious bias" was behind the train conductor, Shaun Irvine's, decision to call the police (Percy, 2020). As stated by Ms Day's daughter, Apryl Day, a prominent organiser in the campaign for justice for her mother, "we know that our mum would have been treated differently and still be alive today, if she was a non-Indigenous woman" (Percy, 2020). There are currently trial sites across four municipalities[34] where police take people who they detain for being drunk in public to sobering up services, as the Victorian government prepares alternative processes in the transition to decriminalisation when the bill comes into effect in November 2022 (Dexter, 2021).

The family and community members of David Dungay Jr., Wayne Fella Morrison, and Tanya Day have been instrumental in successful campaigns taking unprecedented legal action in the most esteemed fora of international law, and more localised legislative reform that will limit deaths in custody. They were not alone in this work, both building new and being brought into expansive networks of supporters and collaborators, in large part, through sophisticated (social) media engagements. Each demonstrated remarkable political success in leveraging the global social movement BLM to harness the momentum required to pressure politicians, lawyers, and courts into concrete action for reducing Indigenous deaths in custody.[35] These families, and the campaigns they organised with the support of organisations,[36] encouraged tens-of-thousands of protestors onto the streets across 2020–2021.[37] This was

[33] Systemic racism was an additional investigatory component successfully argued for by the Victorian Equal Opportunity and Human Rights Commission on behalf of the Day family. This was the first coronial inquest in which systemic racism was considered (Victorian Equal Opportunity & Human Rights Commission, 2020). This is an important precedent that other families can now use to support the investigation of systemic racism in future coronial inquiries.

[34] These trial sites are located in the City of Yarra, City of Greater Dandenong, City of Shepparton, and Castlemaine.

[35] Among these accomplishments has also been a refresh of the Australian government's Closing the Gap targets to include focus on criminal justice indicators, and movement to raise the age of criminal responsibility across settler-Australian jurisdictions.

[36] Organisations include Warriors of the Aboriginal Resistance, Dhadjowa Foundation, Indigenous Social Justice Association (Melbourne and Sydney), community legal centres and carceral abolitionist collectives among others.

[37] BLM has been leveraged by Indigenous activists in Australia to draw attention towards Indigenous deaths in custody (and other killings) for a number of years prior to 2020.

remarkable considering the global pandemic and hostility from many media outlets, police, and political leaders. This included Prime Minister Scott Morrison who warned, "don't go…There's no need to import things happening in other countries here to Australia" (Henriques-Gomes & Vistonay, 2020).

The diasporic nature of BLM is determined by the spaces in which White supremacy and (settler-) State violence necessitates it taking root. As Walcott underscores, it is a "call to notice what is immediately around you and therefore to notice the local and national simultaneously" (Simpson et al., 2018, p. 86). The strategic leveraging of momentum alongside the uptake of discourses and tactics from BLM in the US can be understood as transmitting through "translocal connectivities" (Simpson et al., 2018). These translocal connectivities do not form in a vacuum. They are contingent upon both local and international genealogies of 'radical' theory and practices of resistance to White supremacy, particularly its manifestation in settler-state violence. These genealogies, while always embedded in a context attendant with police violence, occupy a broader orientation. As Walcott argues, they comprise "a politics of the collective, even global, as a counter and a possible future for the organization [*sic*] of human and planetary life" (Simpson et al., 2018, p. 82). BLM is not a homogenous movement. Its aims and objectives look markedly different at various points along these translocal connectivities. As Munanjahli and South Sea Islander scholar, Watego, highlighted, there are significant tensions for many First Peoples in their relationship to African American iterations of BLM and (some of) their objectives. Watego keenly highlighted the silences these iterations have, at least at times, maintained in relation to the occupation of Indigenous lands. When some iterations of BLM are chiefly concerned with reforming citizenship conditions between People of Colour and the State, these can be antagonistic to the goals of some First Peoples, upon whose territories settler-states depend in retaining (illegal) occupation. Watego states,

> Blackfullas are not seeking a revitalised citizenship that recognises our dignity and humanity—we are insisting upon our sovereignty as First Nations peoples. We refuse to talk about our lives independently of our land. We remind them every day that we are still here in this place—and it is their

> presence on our lands that poses the real problem, not our lives. We refuse to appeal to the benevolence of the colonisers for our lives to matter, because we know that their existence on this continent remains legally predicated upon our non-existence. (Watego, 2017)

Despite these significant geo-cultural and political differences, the families and communities of those killed by the Australian settler-state have, through digital mobilisation around BLM, generated remarkable success at shining the spotlight on State violence, transforming legislation and detention practices, and generating publicity and support for justice reforms. In the process, they have contributed to the dynamism of the Indigenous public sphere and its determination for creating Indigenous futures released from the colonial violence that continues to impinge upon Indigenous joy and success.

The Implications of Digital Intensification

Digital intensification comes with increasing fluidity and complexity, posing new risks and opportunities. The two examples presented above demonstrate several ways in which the utilisation of digital technologies facilitates social and political outcomes: through voice projection, transmission of ideas and emotions across spatiotemporal boundaries, consciousness-raising, movement-building, and provoking legislative and institutional reforms. Pascua Yaqui scholar, Duarte, adds increasing visibility and government or treaty-partner accountability to this list with her research findings (Duarte, 2017). Michi Saagiig Nishnaabeg scholar, Simpson, speaks of the radical potential of "constellations of co-resistance", facilitated through global networks enabled by digital technologies (Simpson et al., 2018). However, many Indigenous scholars in the field are acutely aware of how digital intensification is also laden with threat.

Simpson drew attention to the ways in which corporate social media (platforms) are anti-democratic, extractive, surveillance infrastructures that service the needs of colonial governments and capital at First Peoples' expense (Simpson et al., 2018). Beyond the threats all users of these

platforms face in respect to privacy and agency over intellectual property and data rights, First Peoples also face specific challenges from the intensification of forms of data threats to Indigenous collectivities that spawned an expanding body of work on Indigenous data sovereignty (Kukutai & Taylor, 2016; Walter et al., 2020; Walter & Suina, 2019). First Peoples' intellectual responses to these threats fall within a much longer trajectory of asserting self-determination as the primary means of empowerment and control over contemporary and future Indigenous lives.

Within the literature on Indigenous public spheres there is an important debate as to how open or closed these spheres are. Another way to approach the same concern is to question to what degree these are governable spaces. Who governs these spaces? Some scholars suggest there is little control that can be exercised by First Peoples (Hartley & McKee, 2000). In contrast, others contend that First Peoples' governance of constituent spaces is what defines the Indigenous public sphere as Indigenous (Meadows, 2005). This question of open versus closed, governed versus ungovernable is a contentious consideration even between the authors of this chapter, with particular concern for how this impinges upon First Peoples' right to determine the contours of their own membership/citizenship (United Nations, 2008).

One of the profound problematics in the 'imagined community' of Indigenous public spheres is the definition and management of who speaks as Indigenous in this virtual space.[38] The transnational phenomenon of race-shifting subverts Aboriginal peoples' processes of recognition to state and institutional apparatuses (Deloria, 1998; Sturm, 2011; Leroux, 2019; Grieves-Williams, 2021; Ingram, 2021, 2022). Self-indigenising individuals are legitimised through visible agitations in the online frontier who then parlay their digital union with "morally freighted headlines" (Haidt & Rose-Stockwell, 2019) into accessing the limited compensatory resources that First Peoples fought for.[39]

[38] This threat is not limited to digital spaces. Some Indigenous scholars have highlighted the way liberal institutions exacerbate and benefit from this by encouraging self-identification processes only (Andersen, 2016).

[39] While often mythologised and overstated by settlers (particularly Right-wing populist politicians fuelling anti-minority resentments), these resources include specific Indigenous-identified jobs, housing schemes, educational scholarships, business finance, and related opportunities.

Discussion between the authors of this chapter characterised this double-sided nature of the digital sphere as a settler-colonial fantasy of an 'open space'. The digital frontier is commonly represented as ready to be colonised and exploited by corporate innovators to harvest windfall profits. The libertarian/colonial fantasy of the frontier is of a lawless place where anything goes, the past can be forgotten, and entrepreneurial people purport to make themselves anew without the ballast of history, family, identity, or responsibility. For settlers, their/our own lives, identities, family stories have been produced by the opportunities to 'remake' themselves/ourselves on Indigenous lands through the romanticised and sanitised myth of the frontier and 'new worlds'. For First Peoples, 'frontiers' have a history of settler-colonial violence scaffolded by the imposition of foreign laws, state-sponsored dispossession, exploitation, and violence disrupting the orderly, Indigenous-law-governed relations of Country. The "open space" of digital engagements carries risks of colonisation, particularly in a replication of the impulses of erasure and replacement that mark settler-colonialism (Wolfe, 2006). This includes settler claims to Indigenous identities. Just like in the physical realm, settlers making these claims cannot fully leave behind markers of "past lives", and these are often discernible to Indigenous digital participants (Duarte, 2017; Ingram, 2021).

A bulwark against this threat transcends spatiality to a large degree: community recognition. Duarte contends,

> Indigenous peoples uses of social media are grounded in not just contemporary political exigencies, but also in the tribal philosophies, spiritualities, traditions, and historical legacies of peoples with memories reverberating through eras well before the founding of modern nation-states. (Duarte, 2017, pp. 9–10)

Indigenous digital social movements are often anchored in face-to-face community relations and the knowledges generated through them (Duarte, 2017). These become movements or engagements of a hybrid spatial nature. Provided that decision-making occurs primarily in the physical community, digital communities can be largely, but not entirely, directed. This of course does not address the forms of identity

appropriation that come by virtue of the increasing Indigenous visibility such digital movements contribute to.[40] That visibility, along with its implications for settler subjectivities, worldviews, and settler-state sovereignties, we hypothesise, produces some of the motivations of settlers claiming Indigenous identities. Attack on First Peoples' capacity to determine citizenship/membership is one of the many significant threats accelerated through digital intensification, but these threats are also accompanied by powerful opportunities to organise horizontally outside dominant media.

Conclusion: Digital Solidarities

This chapter has highlighted the digital expertise of Indigenous activists in the context of local mobilisations connected with and contributing to (inter)national and global movements. In mounting their resistance to constitutional recognition, activists drew both on related global assertions of Indigenous sovereignties and local activist networks through the skilful navigation and operationalisation of digital technologies. Digital and embodied mobilisations around the global BLM movement were given a specific local and (inter)national force by Aboriginal and Torres Strait Islander activists living with the impacts of unaccountable State violence enacted against our/their communities and families. These examples highlight the power Indigenous activist-intellectuals can bring to bear in online spaces. They illustrate the ways the global digital sphere interacts with face-to-face mobilisations in meetings, demonstrations and other protest forms, building communities of solidarity that can resist dominant narratives and usher in desired futures. While these spaces are by no means entirely positive, nor can their manageability by First Peoples be easily taken for granted, they do provide the informational infrastructure to drive socio-political transformations that have material benefits for people's lives. They also facilitate constellations of co-resistance that

[40] Settlers making claims to Indigeneity is not a new phenomenon, although it may be increasing along with other identities targeted in "race-shifting" practices (Leroux, 2019). There is a 'long' historical record of settlers claiming Indigenous identities and/or practices (Deloria, 1998; Sturm, 2011; Tuck & Yang, 2012).

offer the hope of building global futures premised on relationalities of responsibility to and respect for all life (Simpson et al., 2018). Digital intensification, while double-sided, has created new opportunities for Indigenous activists and intellectuals to incubate globalisms with Indigenous futurities at their core.

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5

Dangerous Misogyny of the Digital World: The Case of the Manosphere

Shannon Zimmerman

Introduction

Digital technologies are embedded in almost every aspect of daily life. These technologies have opened space for new and diverse voices to enter public conversations, access information and create their own content. They also lower barriers to access for many and allow for the discussion of matters of common concern. Over time they have become core components of the public sphere (Sobieraj, 2020). The utility of such online spaces as an equalising force is tempered by the fact that they are only as progressive as the people who use them. Digital technologies, and the spaces they create, are not separate from existing social constructions. They are, therefore, also being used to replicate existing, unequal social constructions and foster even more extreme online communities that would have struggled to coalesce in real life.

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This chapter explores one of the most notable of these communities, the 'Manosphere', a name used to refer to the vast constellation of anti-women websites, blogs, subreddits, chat rooms and online forums, that has become the favoured arena for misogyny-based groups in the English-speaking world. It is important to understand the Manosphere for several reasons. The most pressing is the fact that some individuals who enter the Manosphere can become increasingly radicalised over time, as they move from the moderate spaces to the more extreme (Ribeiro et al., 2020). These individuals can then act on their extreme misogyny, pursuing misogynist political agendas, reinforcing sexist stereotypes and, in extreme cases, using violence to defend their perceived privileges (Manne, 2017; Chan, 2020; Bates, 2021). This chapter draws together existing research on the different groups in the Manosphere and combines it with current understandings of the nature of online environments to show that the Manosphere is more than just a static online space but rather a complex digital environment that is influenced by and, in turn, influences, those who inhabit it. To do so, this chapter first assesses how digital spaces can facilitate the creation of extreme online communities through anonymity, digital disinhibition and the creation of echo chambers. It then provides an overview of each of the major groups that thrive in the Manosphere: Men's Rights Activists, Pick-Up Artists, Men Going Their Own Way and the Involuntary Celibates. While each of these groups is distinct, they are united by their virulent misogyny. Lastly, this chapter highlights some of the key threats arising from the Manosphere in the form of creating unsafe digital spaces, facilitating online misogynistic radicalisation and fostering both online and real-life acts of violence. By presenting the Manosphere inclusive of the distinct factors that facilitate its creation and potential negative outcomes, this chapter hopes to orient future research on the Manosphere and the groups that call it home.

The Nature of Online Spaces

As a 'digital ecosystem', the Manosphere foments extreme misogyny, dehumanises women and, at its deepest levels, advocates for violence against all things feminist. It has come to be known as the "online heart

of modern misogyny" (Marche, 2016).[1] It was created by men who feel that their masculine identity is threatened (Eddington, 2020). In these spaces, users draw on an ideological agenda based on misogyny, victim mentalities, antifeminism and regressive pro-masculinist rhetoric (Eddington, 2020) to "make sense of complex realities that they interpret to be largely detrimental to men, which they argue is the result of feminism" (Schmitz & Kazyak, 2016, p. 11). In previous generations, advocates of such rhetoric and beliefs might have struggled to find groups of like-minded individuals. However, with the internet's ability to allow for the 'self-synchronization' of geographically disparate groups with shared ideas, lonely and angry men are now able to gather in safe anonymity (Ricard, 2018; Shirky, 2011). They can now form and foster collective identities without ever having to meet in person.

Key to explaining how the Manosphere works are anonymity, digital disinhibition and the amplifying effect of echo chambers. These factors interact with the baseline misogyny of the users on the Manosphere and ambiguity between 'real discourse' and comments made for the 'lulz' (fun or laughter, usually at another's expense). Most spaces in the Manosphere operate under a zero-identity principle. Users can "anonymously engage in sustained discussions about a movement, its vision or goals and retain a sense of connectedness with ongoing activities" without ever having to meet in person (Bennett, 2012; Bennett & Segerberg, 2012; Rafail & Freitas, 2019, p. 2). This anonymity reduces social context cues and norms, resulting in the "online disinhibition effect" where actors in online spaces feel less inhabited by norms of 'acceptable behavior' (Suler, 2004). In this environment, residents of the Manosphere create alternate selves or avatars that are liberated from not only physical but also ethical and moral constraints (Turton-Turner 2013; Vyshali, 2013, p. 112). As these avatars, users can express increasingly extreme ideas and thoughts

[1] The term Manosphere first appeared on a Blogspot Blog to describe the online community of interest groups focused on men. Later popularised by Ian Ironwood—porn marketer and pseudonymous author of the self-published *The Manosphere: A New Hope for Masculinity.* See: Ging, D. 2017. *Alphas, Betas, and Incels: Theorizing the Masculinities of the Manosphere. Men and Masculinities, 1097184X1770640.* Ironwood, I. 2013. The Manosphere: A New Hope for Masculinity. Otto, NC: Red Pill Press.

without the social censure that would exist in real-world situations (Powell et al., 2018).

This anonymity-driven disinhibition interacts with user preference and search engine algorithms to create online echo chambers which reward extreme rhetoric and amplify the grievances of those on the Manosphere. The algorithms which drive web browsers such as google create 'Filter Bubbles' which emphasise these pre-existing preferences to identify 'best matches' for the end user (Kuehn & Salter, 2020, p. 1592). An unintended consequence of this is that such customisation may foster polarisation and intolerance, unintentionally pushing users beyond the mildly sexist outer layers of the Manosphere and into its violent misogynist core (Deb et al., 2017; Kessler et al., n.d.; Alzahrani, 2016). Individuals who find themselves in the Manosphere already express or identify with some aspect(s) of misogyny. Rather than providing a full array of options, users are nudged in the direction of their existing biases (Reeck et al., 2016) which are then leveraged and amplified.

The social media character of many Manosphere spaces further facilitates misogyny by 'rewarding' extreme rhetoric. The 'upvoting', 'liking' or 'karma' functions on these pages boost particular posts, gaining them more attention and indicating their value to the discussion (Massanari, 2017, p. 331). This voting system facilitates the echo chamber effect by raising voices that are consistent with community preferences and narratives (Rafail & Freitas, 2019, p. 2). Generally, the most extreme posts are the ones that are rewarded, thus reifying and incentivising extreme rhetoric. The nature of this environment makes it impossible to distinguish between meaningful posts and those made just for the 'lulz'. The interaction of baseline misogyny with anonymity, digital disinhibition and the amplifying effect of digital spaces has resulted in the creation of the Manosphere and its 'toxic technoculture' (Massanari, 2017, p. 333).

Swallowing the Red Pill

There are multiple groups within the Manosphere, each with its own priorities, goals and particular brand of misogyny. They are all united by their belief in something called 'The Red Pill', an analogy taken from the 1999 film *The Matrix* where the character of Morpheus gives the protagonist, Neo, the option of taking two different pills: the blue pill—which will allow him to return to his old, unfulfilling life; or the red pill—which would open his eyes to 'reality'. This metaphysical choice between ignorance and servitude and a life of enlightenment has been appropriated by members of the Manosphere to represent their "awakening" to "feminism's misandry and brainwashing" (Ging, 2017, p. 3) and the "truth of male exploitation and oppression" (The Futurist, 2013; Van Valkenburgh, 2018, pp. 5–6). While the general population remains oblivious to these harms, those in the Manosphere endeavour to liberate themselves from feminism's oppression.

In general, members of the Manosphere appear to ascribe to what is considered 'traditional' cis-gendered masculinity that is hegemonic in most Western societies. Hegemonic masculinity was first articulated by Connell in 1987 and refers to the most 'honoured' way of being a man and holding a leading position in social life (Connell, 1987; Connell, 1995).[2] It is the favoured masculinity within the society which often legitimises unequal gender relations between men and women (Messerschmidt, 2019, p. 86). What makes a particular understanding of masculinity hegemonic is variable, evolves over time, and all other masculinities position themselves in reference to it (Connell & Messerschmidt, 2005, p. 832; Connell, 2005, p. 76). The 'traditional' masculinity held up by the Manosphere has its roots in the industrial era and promotes the concept of the male breadwinner, toughness, physical strength, attractiveness and sexist views (Gilmore, 1990; Leaper & Van, 2008; Pleck et al., 1993). Communities within the Manosphere revolve around

[2] Though this is the cornerstone definition of hegemonic masculinity, the idea has been critiqued by both its originator and others. See Connell, R. W. & Messerschmidt, J. W. 2005. Hegemonic Masculinity: Rethinking the Concept. *Gender and Society,* 19**,** 829-859, Demetriou, D. Z. 2001. Connell's Concept of Hegemonic Masculinity: A Critique. *Theory and Society,* 30**,** 337–361.

promoting, leveraging or—in the case of the Incels—rejecting this traditional understanding of hegemonic masculinity.

The pursuit of hegemonic masculinity by those in the Manosphere becomes toxic[3] due to its combination with misinterpreted and simplified theories of evolutionary biology and sexual capital. These theories are used to argue that the source of grievances for men in the Manosphere stems from feminism, specifically, the sexual revolution. These men argue that women, unlike men, are irrational and driven by a predatory biological need to pair with an alpha male (Ging, 2017, p. 13). On Manosphere sites it is frequently lamented that access to birth control has made it possible for women to pair with multiple men without being restricted by marriage or social stigma. As a result, men's sexual capital has gone down while women's has gone up—making it harder for most men to gain access to sex and control the women in their lives.[4] This is referred to as the 80/20 rule where the 20% of men have access to 80% of sex while the men with lower sexual market value compete for the remaining partners (Menzie, 2020, p. 5). Members of the Manosphere attempt to regain lost privilege by reemphasising essentialist gender binaries—casting the feminine as weak and subordinate while valorising dominant and authoritative expressions of masculinity which can easily escalate to violence (Haider, 2016).

Four overlapping groups or 'tribes' have been identified that inhabit the Manosphere: Men's Right's Activists (MRA), Pick-up Artists (PUA), Men Going Their Own Way (MGTOW) and Incels (Farrell et al., 2019; Ribeiro et al., 2020). Without acknowledging the privilege that comes with being generally cis, white males, these groups blame feminism, and women in general, for their failures (Flood et al., 2018, pp. 15–16; Marwick & Lewis, 2017, p. 17; Massanari, 2017). Debbie Ging describes these groups as the newest articulation of aggrieved manhood amplified

[3] Toxic masculinity in this context can be understood as masculinity that "involves the need to aggressively compete and dominate other and encompasses the most problematic proclivities in men". See Kupers, T. A. & Rochlen A. B. 2005. Toxic masculinity as a barrier to mental health treatment in prison. *Journal of Clinical Psychology,* 61, 713–724.

[4] This observation is based on six months of immersive familiarisation undertaken by the author on incels.me and the Reddit subreddit r/braincels before it was banned in 2019. Ethical clearance for human research was received for the research.

by social media (Ging, 2017). These men feel entitled to certain privileges, particularly relating to power, control of women and access to women's bodies. When these entitlements are not recognised, the result is anxiety, vulnerability and grief. Unable to deal with this relative deprivation where they see their position declining in relation others, this insecurity is transformed into "aggrieved entitlement" (Gurr, 2011; Kimmel, 2013). When left unaddressed, this entitlement can turn to rage.

Men's Rights Activists (MRA)

Men's Right's Activists (MRA) are the most visible and mainstream of the Manosphere groups. MRAs are a modern 'anti-feminist' iteration of the men's liberation movement of the 1970s (Messner, 1998). Initially pro-feminist, MRAs split in the 1980s between anti-feminist and pro-feminist groups (Coston & Kimmel, 2012, p. 369). Instead of seeing oppression of the sexes as a structural or political issue, anti-feminist MRAs began to argue that their oppression was the result of a feminist conspiracy (Southern Poverty Law Center, n.d.). MRAs began to argue that the narrative of male supremacy was an illusion and that women's empowerment had gone too far, resulting in men having second-class status. Eventually, they 'flipped the narrative' and argued that men were victims who were culturally and politically dominated by feminism. The original critique of the oppressive male sex role that gave rise to the men's rights movement was lost and the group became infatuated with traditional or 'Alpha' masculinity (Coston & Kimmel, 2012, p. 372). The revalorisation of Alpha masculinity and conservative social values associated with it became part of MRAs broader political goals.

MRAs initially pursued their goals through advocacy and legal action (Flood et al., 2018). Initially, their targets were issues such as women's exemptions from the draft and advantages in alimony and child custody. Over time, however, their focus expanded to include a much broader array of perceived institutionalised female privileges that ignored existing patriarchal structures. Continuing to use legal structures as a means for change, MRA groups sued bars in New York City that offered Ladies' Night, arguing that they were discriminating against men by making

them pay entry fees and full price for drinks. Less flippantly, MRAs also attacked the Violence Against Women Act, alleging that it both discriminated against men and failed to acknowledge the violence perpetrated by women against men (Coston & Kimmel, 2012). These cases and others were thrown out by the judges but other approaches by MRA groups have been more successful. For example, the MRA group the National Coalition for Men (NCFM) attempted to influence policy on sexual assault and rape by arguing that it is widely overreported (Cauterucci, 2017). They have also harassed sexual-assault survivors and routinely bring lawsuits against women-only groups, alleging discrimination (Cauterucci, 2016; Levintova, 2016). Many of these lawsuits have been settled out of court, damaging, and intimidating pro-women organisations while funding further MRA operations.

Current MRA focus now includes the perceived discrimination against men in cases of rape and sexual assault, gender inequality, antifeminism and domestic violence (Rafail & Freitas, 2019). With the growth of its online base, MRA groups have begun to eschew legal efforts and launch various online campaigns—an approach which has been effective in suppressing feminist voices and terrorising gender advocates. This includes the online harassment of female journalists and public figures, sharing the personal information of women without their consent, (known as doxing), threats of abuse including rape and murder and the creation of a fake "offenders registry" that targeted women who offended MRA groups (Futrelle, 2012). Initially created to help men address the negative impacts of patriarchy, many of the most active modern MRAs have devolved from "legitimate advocacy for equal treatment in divorce and custody disputes into a toxic male rage" directed at women (Hendrix, 2019).

Pick-up Artists (PUA)

The second group in the Manosphere, Pick-up artists, are also well known. Pick-up artists emerged in the 1970s but solidified as a group in the 1980s around the work of Ross Jeffries, who wrote the book *How to Get the Woman You Desire into Bed* (Jeffries, 1992) and ran a series of

workshops on his pick-up "techniques". While there is no unified PUA "philosophy" many modern PUAs focus on the sexual conquest of "quality" women based on their physical characteristics (Fahs, 2011) and implicitly criticise female sexuality and feminism in general (King, 2018, pp. 300–1). Indicative of sexual narcissism, PUAs consider themselves entitled to sex, are willing to be aggressive in demanding it and feel victimised if they are refused sexual access (Widman & Mcnulty, 2010). This aggression is exemplified in the most well-known PUA, Roosh V on his online platform in the Manosphere "Return of Kings", Roosh V articulates what he calls "neomasculinity" which argues that women are intellectually inferior, illogical and useful only for sexual intercourse and breeding (Southern Poverty Law Center, 2021). He has gone so far as to call for the legalisation of rape on private property (Southern Poverty Law Center, 2021).

For PUAs, the sexual "conquest" of women is likened as a way for men to defend male privilege (Cosma & Gurevich, 2020, p. 49). PUAs can be considered a strand of male supremacy because they systematically dehumanise women, undermine the idea of consent and perpetuate strategies to degrade and control women. PUA tactics include aggressive, abusive and derogatory behavior and even choking women and forcing their heads towards men's crotches (Trott, 2020). In this process, women's bodies are commodified by assigning them a sexual market value and the more women you 'use' the more masculine you are. Any damage done to the women—either physically or psychologically—is essentially collateral damage.

Men Going Their Own Way (MGTOW)

Men Going Their Own Way (MGTOW) and Involuntary Celibate's or Incels are the two most recent, and extreme, groups to emerge in the Manosphere. These two groups have higher levels of misogynistic discourse and more posts representative of violent attitudes (which are considered containing sexual violence, physical violence, racism and homophobia) (Farrell et al., 2019). Whereas MRAs believe they can challenge or change the system and PUAs want to 'game' the system to be

more successful, MGTOW and Incels agree that the gynocentric society is immutable and that they will inevitably be the ones harmed by it. This perception drives their unique approaches.

Men Going Their Own Way (MGTOW) consider themselves as separatists who, rather than attempting to engage and reform what they perceive to be a discriminatory society, elect to pursue self-empowering, individualist lives away from the interference of women (Wright et al., 2020, p. 908; Jones et al., 2020). Much like MRAs and PUAs, MGTOWs believe that women are evolutionary different from men with biologically programmed behaviours that will lead them to use men for their own advantage. Specifically, women will use their looks to have sex with whomever she wants but will identify a beta male to use for his "utility value" that is, his financial assets and stability (Lin, 2017, p. 89). The result is a situation that is inevitably exploitative for beta men.

To preserve themselves from this situation, MGTOWs avoid women as much as possible. They maintain self-ownership or sovereignty of themselves (as opposed to ceding it to women) by avoiding sex, relationships and marriage (Jie Liang, 2017; Jones et al., 2020; Wright et al., 2020). Some MGTOWs also attempt to avoid socialising or working with women for fear of being accused of sexual harassment or rape. Eventually, MGTOWs desire to withdraw from society altogether as they view it as gynocentric and irreparably corrupted by women. Despite their claims to be separate from society and their discursive separation from the other groups of the Manosphere, MGTOWs facilitate the growing "digital culture of misogyny" found in the Manosphere (Jones et al., 2020). They contribute to passive harassment that might not target a specific victim but is still able to cause psychological harm, force women to withdraw from online spaces and silence female voices.

Incels

The Incels or 'involuntary celibate's' are arguably the most dangerous group in the Manosphere. They combine extreme misogyny with a hopeless worldview that leaves them trapped, frustrated and angry. Journalist David Futrell, notes that

> Of all the toxic misogynistic groups I monitor on my blog, the Incel subculture is easily the most troubling. It's a strange and toxic little world that transforms lovelorn men by the thousands into potential terrorists. It not only stokes men's hatred of the women who won't date them, it also encourages a hopeless self-hatred that leads many Incels to conclude they have little to live for. (Futrelle, 2018)

Incels are individuals who want to engage in romantic or sexual relationships but have been unable to do so. Much like other members of the Manosphere, Incels believe that women are driven by a biological imperative and pursue men with the most desirable physical characteristics. However, they have taken this a step further to base their entire worldview on sexual access. Despite Baumeister and Vohs' warnings not to do so (2004), Incels have stripped references to culture from the concept of the sexual marketplace and applied the principles of economic theory to analyse sexual transactions in monetary terms (Baumeister & Vohs, 2004; Baumeister & Mendoza, 2011, p. 352). For Incels, the world is governed by a gynarchy that ranks people based solely on their sexual market value—with 'Chads' and 'Beckys' being the most attractive individuals at the top of the pyramid, 'Normies' or average individuals in the middle, and the least desirable individuals—such as the Incels—at the bottom. Where the most attractive 20% of men now have preferential access to 80% of available women, the vast majority of men must compete over the remaining, limited number of women. The result is a sexual hierarchy based on genetic superiority. Being at the very bottom of the hierarchy, Incels find themselves 'priced out of the market' and unable to secure a partner.

To make their interpretation of the sexual marketplace work, Incels cast women as sub-human. They are seen as predatory "beasts" who are "incapable of having morals or thinking rationally" (Rodger, 2014: Epilogue). Women are portrayed as manipulative, searching for genetically superior males to reproduce with and for average 'beta' males to support them. Any desires that men have for emotional connections with women are simply another attempt by females to subject and control men by conditioning them to desire idealised conceptions of love (Anonymous, 2009; Tomassi, 2001; Tomassi, 2012; Van Valkenburgh,

2018). On Incel forums women are referred to as 'foids', or 'femoids' or labelled with terms that dehumanise them by only indicating their sexual value. This sub-human categorisation of women has fostered increasingly violent rhetoric against women. For Incels it is not just about access to sex but about a deep hatred of women, viewing them as inferior, hostile and in need of being controlled (Domise, 2018).

Unable to change their situation, Incels have adopted an approach known as 'hope, cope, and rope' where they either attempt to better themselves, find coping mechanisms or consider suicide. In extreme cases, some Incels take the black pill, where their resentment towards those they perceive as their oppressors is combined with a sense of nihilism and self-loathing. The results are self-destructive acts of mass violence in real life, including the 2014 Isla Visa attacks that killed six, the 2018 Toronto van attack that killed ten and several school shootings (Hoffman et al., 2020).

The Danger of the Manosphere

The Manosphere is a multilevel security concern. First, it represents a threat to people online by creating unsafe digital spaces for women and many other groups that can result in real trauma for victims. Second, the environment of the Manosphere radicalises its own members. Its reinforcement of polarised gender identities amplifies existing misogyny and makes users more susceptible to other radical groups which rely on gender tropes for recruitment. Lastly, the Manosphere has and will continue to facilitate real-world violence.

Unsafe Digital Spaces

Advances in communications technology have seen work, social life and politics all move online to greater and lesser degrees. With the recent COVID-19 pandemic, entire aspects of life have become digital. At the same time, the structures, mechanisms and laws that keep us safe in the real world are much more limited online. The result has been the

proliferation of online actors who 'gatekeep' many online spaces. Other actors engage in digital attacks on people in open digital spaces, making them unsafe. The Manosphere contributes to this problem.

Regardless of their particular "brand" of misogyny, inhabitants of the Manosphere are united by a shared rhetoric and worldview grounded in misogynistic tropes that aim at silencing feminist voices (Venäläinen, 2020; Tranchese & Sugiura, 2021, p. 8). Online spaces already trend towards androcentrism—meaning their tendency to exclude women by creating an unwelcoming environment (Kendall, 2002; Herring, 1996). The presence of the Manosphere has only exacerbated this problem and made an unwelcoming environment overtly hostile. Members of the Manosphere undermine the civility of the cybersphere by radicalising political discourses and fomenting sexism online (Jane, 2014b; Blodgett & Salter, 2018). Attacks by Manosphere members curtail women's access and freedom to use public online spaces (Citron & Norton, 2011). Actors, both online and off, who fail to adhere to 'appropriate' versions of masculinity, become targets for censure. This includes men who do not embody the hegemonic masculinity the Manosphere so prizes, women who are not "obedient to the conditions of heteropatriarchy, compliant with the male gaze and of 'acceptable' form (white, straight, able-bodied, thin)" (Menzie, 2020, p. 2) and any of the LGBTQI+ community.

General online abuse consists of online hate speech, trolling, abuse, rape threats and harassment (Braithwaite, 2016; Edstrom, 2016). Women are at particular risk of sexualised harassment (Bartlett et al., 2014; Jane, 2014a; Jane, 2014b). Instead of focusing on stated positions, attacks target women's identities and generally consist of rape threats, ridiculing women's appearance and physical features, and remarking on their presumed sexual behaviour (Sobieraj, 2020, p. 4). They also aim to instil fear in people they disagree with through exclusion, distain or discrediting (Lewis et al., 2017). This is done in an effort to enforce the internet as a masculinised space where women are subordinate (Nicholas et al., 2018).

Abuse also goes beyond the verbal to include digital attacks such as hacking websites, manipulating images of women, revenge porn or doxing (where private information is shared online without consent) (Sobieraj, 2020). Such abuse can have the same negative impacts as real-life violence and can cause psychological harm leading to depression,

anxiety and PTSD (Pittaro, 2007; Wolak et al., 2007). Individuals have lost their jobs, been forced to limit their public engagement, move residences and even change their names to escape this abuse (Citron & Franks, 2014; Citron, 2014). In such cases virtual violence is indistinguishable from real-world violence (Dragiewicz et al., 2018). After experiences of online harassment, women are more reluctant than men to re-engage in online spaces and share their opinions (Nadim & Fladmoe, 2021).

Online Misogynistic Radicalisation

Once inside the Manosphere, users are exposed to a vast network that provides easy access to and promotes increasingly extreme content. User choices and algorithmic bias combine to drive the user to the more misogynistic levels of the Manosphere. At the same time, the disinhibition provided by online anonymity, the echo chamber-like nature or these sites and the constant push for kudos or 'lulz' drives users to be their worst. This "virtual radical community" grooms individuals by rewarding extreme rhetoric and attitudes in a phenomenon called "group polarization" where members of a group move towards a more extreme position than indicated prior to their meeting (Sunstein, 2002; Brzuszkiewicz, 2020, p. 10; Wadhwa & Bhatia, 2015; Wood, 2018).

The rhetoric and radicalising nature of the Manosphere has not gone unnoticed by other extremist groups which have gender tropes as part of their ideology. Male supremacy and white supremacy are considered to go hand in hand (Anti-Defamation League, n.d.), and misogyny has been identified as a "gateway" to further extremism (Romano, 2018). Connections between the Manosphere and other extremist groups are growing. For example, Incels and far-right adherents intermingle on sites like Reddit and 8kun and MRAs have been connected to the neofascist militant Proud Boys (Romano, 2018). Because the alt-right, neo-Nazi and jihadist groups alike share an underlying thread of misogyny, they view the Manosphere as a promising place to find new recruits (Domise, 2018).

As the Manosphere grows, the space itself is becoming more radical. A recent study of the Manosphere noted that "older communities, such as Men's Rights Activists and Pick Up Artists, are becoming less popular and active, while newer communities, like Incels and Men Going Their Own Way, are thriving" (Ribeiro et al., 2020). This is concerning because "the latter are more toxic and espouse nihilistic and extreme antiwomen ideologies" indicating that the Manosphere itself is becoming more extreme (Ribeiro et al., 2020). This entire online world is ideologically drifting away from sexist but generally non-violent discourses of men's rights towards overtly misogynistic and violent rhetoric (Farrell et al., 2019, p. 87; Ribeiro et al., 2020). The result is ever-mutating and increasingly virulent streams of misogyny emerging to contaminate online spaces.

Translation of Online Violent Rhetoric to Real World Violence

The toxic hegemonic masculinity espoused on the Manosphere is not confined to the digital world but has been shown to contribute to school (Kalish & Kimmel, 2010) and terrorist shootings (Kellner, 2015). This includes not just attacks against women but sexual minorities (Parrott, 2009). Research by Silva et al. has shown that between 1966 (when the first "modern" mass shooting occurred) and 2018, 34% of mass shooting were gender-motivated (Silva et al., 2021). This is 106 individual incidents. The number of such incidents per year is multiplying exponentially each decade and has shifted from targeting specific women known to the shooter to targeting women in general.

Mass-violence attacks most easily connected to the Manosphere are those undertaken by the Incels who have made it part of their subculture to advocate for such acts of mass violence and canonise mass murders. In May 2014, 22-year-old Elliot Rodger killed his two male roommates and their guest before targeting the Alpha Phi sorority house at the University of California, Santa Barbara. Unable to get into the sorority house, Rodger targeted a group of women nearby before going on a seemingly random shooting spree—in total killing two women and four men plus himself, and seriously injuring 14 others (Serna, 2015). Before his

rampage, Rodger posted a series of videos on YouTube lamenting how he had been "forced to endure an existence of loneliness, rejection, and unfulfilled desires, all because girls have never been attracted to me". Rodger referred to himself as the 'supreme gentleman', wondered "[w]hat don't they see in me" and declared to women that "I will punish you all for it". He called his meticulously planned killing spree "the day of retribution" (CNN Staff, 2014). Rodger was later linked to several sites online, including PUAHate, a site for people who attempted the 'techniques' touted by pick-up artists but have found them to fail (O'Malley, 2017). Rodger's engagement in the Manosphere supported his belief that he was a "victim of a world that conspired to steal away his (sexually focused) happiness" (Blommaert, 2018). Within the Manosphere there are mixed feelings about Roger's actions, but these seem to focus more on his low body count, and the fact that he killed men as well as women, rather than any condemnation of the violent act and its motivation. Regardless of their criticisms of him, many members appeared to agree with his violent rhetoric and to place the blame on women for his failures.[5]

The Incels have made Rodger their patron 'saint' and openly advocate for individuals to go 'ER' or becoming a 'hERo' meaning to undertake another mass attack like Roger. The clearest example of this was the Toronto Van attack. In April 2018, Alek Minassian posted on Facebook, "The Incel rebellion has already begun! We will overthrow all Chads and Stacys! All hail the supreme gentleman Elliot Rodger" (Barlow, 2018). He then drove a rented van up onto the sidewalk, killing 10 people. In his police interrogation Minassian admitted that he was inspired by posts online and the attack undertaken by Elliot Rodger. He also hoped that his actions would inspire others. Recent work on the most radical group in the Manosphere, the Incels, convincingly argues that they can be considered a misogynistic terrorist group (Hoffman et al., 2020). Including Rodger and Minassian, there have been at least seven mass-violence attacks undertaken by Incels since 2020 resulting in just under 50 fatalities (Hoffman et al., 2020). It is likely that more recent events make this

[5] This observation is based on six months of immersive familiarisation undertaken by the author in on incels.me and the Reddit subreddit r/braincels before it was banned in 2019. Ethical clearance for human research was received for the research.

number even higher. For example, the August 2021 attack in Plymouth, England, which killed five, was committed by an individual who had shown an interest in Incel subculture (Crawford & Keen, 2021).

Less directly, the Manosphere was key in fostering the conspiracy theories and narratives which motivated the 2019 Christchurch Mosque attack which killed 51 (Thorleifsson & Düker, 2021). This, in turn, inspired deadly attacks in Poway, California; El Paso, Texas; Oslo, Norway; and Halle, Germany. Each of the perpetrators in these events referred directly to the Manosphere, or utilised language and ideas originating from that digital space. This makes it clear that the violent misogynistic rhetoric which begins online has real life, and catastrophic, impacts.

Conclusion

The Manosphere is growing. As its members increase, so too does their impact on ever-broadening portions of the internet, which they turn into an unwelcoming space for actors (male and female) who disagree with their worldview. At the same time, those within the Manosphere are introduced to increasingly extreme rhetoric and ideas which both breeds more misogynists and further radicalises the ones we already have. In rare but growing cases, this can lead to acts of mass violence that can target almost anyone.

Despite the danger it poses, the online threats emanating from the Manosphere are particularly difficult to address. In these spaces it is difficult to tell what comments are made in jest versus those that indicated real intended violence. This is made even more difficult by the use of specialised language, memes and inside jokes that have become integral to communication in the Manosphere (Conway, 2020). While moderation of many Manosphere spaces has become stricter, this has driven members away from public sites to private ones and even to the dark web—spaces more difficult to regulate (Hoffman & Ware, 2020).

The real-life threats posed by the Manosphere are equally as problematic. Most counterterrorism efforts focus on combatting networks or groups rather than individuals. However, Manosphere groups lack a command-and-control structure or hierarchy. They are generally

leaderless and amorphous, and actions taken by members are generally solitary ventures. Manosphere-motivated attacks are of the 'lone wolf' variety, where individuals may be networked in some way but plan out and act alone. This is the type of violence makes it is almost impossible to predict when misogyny-inspired mass-violence attacks will happen because there are too many individual factors (Cristina, 2015, p. 54).

The dynamic ecosystem of the Manosphere fills a need for struggling individuals who are searching for answers to the challenges they currently face in their lives. However, the answers provided by the Manosphere, rather than providing solace, are likely to foment resentment and anger. The increasing radicalisation of the Manosphere itself, and of its members means that violence—both online and off—will likely continue. It is therefore imperative that we acknowledge the danger emanating from this online world and look for ways to moderate and contain it.

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6

Technology and Lawyering: On Legal Practice and Value in a Digital Age

Rebekah Farrell and Alexander Sheed-Finck

Introduction

Recent decades have seen significant and rapid digital transformation of industries and the disruption of traditional models of business organisation. Myriad new opportunities have arisen from business transformation and innovation including alternate business forms and new innovative practices, from Uber Eats to supermarket self-checkouts, digital technologies change the way we live and work. Australia appears to be forward leaning with the uptake of digital technologies. The Australian Government Automated Decision Making and Artificial Intelligence Regulation Issues Paper states that '[d]igitally powered automation is

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creating new ways of working that will boost productivity, improve service delivery, create jobs, help solve the real-world problems of today and grow the businesses of tomorrow' (Department of Prime Minister and Cabinet, 2022, p. 3.) The COVID-19 global pandemic has expedited innovation in Australia, where the introduction of technology has been necessary to complete daily work tasks, and in some circumstances, opportunities have been seized to digitally transform industries.

While the common refrain 'robots will take our jobs' generates fear and uncertainty about work in the future, it is important to remember that at the centre of digital transformation are humans. Humans (and for now, humans alone), make decisions, to introduce digital technologies, for better or for worse and with more or less thought and consideration.

Every profession must decide to what extent it will be transformed by digital technologies. Individuals within the profession must decide the extent to which they adopt new technologies, with the knowledge that they may be 'left behind' if they do not. The decision-making process ideally requires a level of self-reflection of a person's work and how they carry out their work within their professional context and in alignment with their personal values and ambitions.

We (the present authors) belong to the legal profession, which has undergone some level of digital transformation over the past few years and is, according to more some commentators, ripe for much more. According to other commentators, when it comes to innovation, the law has already been left behind.

Richard Susskind (2008) documented the extent of digital transformation and development of Artificial Intelligence (AI) in the legal industry. He provocatively queried (as per the title of his book): are we on the precipice of witnessing *The End of Lawyers?* Susskind's follow-up book, titled *Tomorrow's Lawyers: An Introduction to Your Future* (Susskind, 2013), espouses that tomorrow's legal world will bear little resemblance to today's. Through Susskind's eyes, the future of law will be a world of virtual courts, internet-based global legal businesses, online document production, commoditised services, heightened outsourcing of legal processes and web-based simulated practice. Legal markets will be liberalised, with new jobs and new employers.

Over a decade has passed since Susskind's seminal publication on the future of the legal profession and many of his predictions are now manifest. At the time, a fear that robots would replace lawyers preoccupied the profession, triggered by media articles and most palpable in events with casual titles such as 'Future Focus' and designed 'for lawyers who want to stay at the cutting edge of technological change and business innovation'. Floating around were all sorts of new 'Legal Tech' concepts, a term that broadly refers to the adoption of innovative technology and software to streamline and enhance legal services (Corrales et al., 2019): 'robo judges', 'NewLaw', online dispute resolution and blockchain technologies, to name a few. But was the flurry justified?

Undeniably, digital technologies have impacted the legal profession in significant ways. Lawyers everywhere have accepted technology into the business of law, whether willingly or reluctantly. However, as yet, in 2023, the legal profession has not been entirely transformed by digital technology to the extent that makes lawyers redundant. Lawyers are far from extinct. We still work our regular jobs interacting with clients and colleagues, reading books and writing or typing documents, and appearing at courts and tribunals (more recently, in the case of the present authors, from our noisy, child-filled homes). There are still judges hearing cases and handing down judgements. There are still solicitors and barristers representing clients and charging according to billable hours. Clients seek particular legal advice from humans not machines, and law students see themselves as playing an important role in the future world of law.

The reluctance of the legal progression to adopt digital technologies has been the subject of academic and media commentary (Abramson, 2015; Flanagan & Dewey, 2018.) Some are critical of the legal profession's slow pace in the take-up of technology. For example, entrepreneur and venture capitalist (but non lawyer), Steve Blank (2018) is of the view that lawyers are constantly holding back innovation, rather than facilitating it.

Similarly, Corrales et al. (2019) write:

> Lawyers are creating problems, rather than working to find solutions. The traditional approach of lawyers is clearly wrong and short-sighted. Lawyers need to be much smarter about new technologies and their role in building

> a better future. This is not only necessary to remain relevant in a fast-changing digital world, but also to contribute to a better society for all (p. 7).

Being members of the guild, we—the authors of this chapter—can't help but feel that we should jump to the defence of our profession. However, we also recognise that some of Blanks' comments might have justification. Rather than making a normative judgement about the adoption of technology in the legal profession, a more interesting and useful exercise may be to explore the possible reasons why there may be a reluctance to adopt digital technologies and, if so, why that might be? If we return to the central contention previously posed, that humans are at the centre of digital transformation, responsible for decision-making processes, why are the legal profession as a whole and many lawyers on the 'go slow' with the introduction of legaltech?

The idea of how humans comprehend the digital world as they inhabit it, as is the subject of this book, captured our imagination as it relates to those in the legal profession and we reflected upon it with fellow members of the profession, our colleagues and friends. Our intentions were exploratory and preliminary in seeking the views of a law firm partner, a barrister, an in-house lawyer (that being a lawyer employed by an organisation to provide legal advice to their direct employer), an ethics lawyer and a law student, who in the pages that follow, we refer to collectively 'our lawyers'. We asked them ten questions, which guide the explorations in this chapter. We first explore the attitudes of our lawyers towards the introduction of technology into their work, specifically, what technology has been introduced, what they believe will be introduced in the future, what opportunities digital technologies present along with their possible threats. In the second part of this chapter, we ask our lawyers to reflect upon what they believe they bring to legal practice that technology cannot. To do so, we draw upon the work of Legg and Bell (2020) who offer a far reaching and comprehensive analysis of legal technology in the legal profession. A particularly illuminative aspect of Legg and Bell's (2020) work is their assessment of the lawyer's value relative to the benefits offered by technology. They write:

> It has been said that in the future lawyers will only be used where 'they can bring value that no alternative people, processes, or systems can offer'. Many commentators see value in only financial terms—how legal services can be made cheaper or more efficient. Value is much broader and includes principles or behaviours that are beneficial or important (Legg and Bell, p. 325)

We ask our lawyers to consider how they see themselves as contributing to Legg and Bell's (2020) three kinds of 'value'—of expertise, of ethics and of human-specific characteristics or skills (p. 356). Further, we ask them to consider the impact technology may have on their offering of these values.

Their responses are both instructive and illuminating, and are reproduced in the pages that follow, anonymously, and with their consent. This chapter does not represent a thorough survey of lawyers and their attitudes; it is, rather, a scoping out of responses and considerations that might shed light on the reasons behind what has been observed at a distance—the hesitancy of lawyers towards broad adoption of digital technologies. Throughout the body of this chapter and in our final reflections, we offer some observations on the digital human condition as it pertains to the world of law.

The Adoption of Digital Technologies in the Legal Profession

It is difficult to write about the introduction of technologies into any industry without the overlay of the global pandemic. According to Dolan and Erwin (2021), 'the legal world (including in-house lawyers) has had to adapt to find new and clever ways of working in order to survive and serve their clients' (p. 49). Reactively, working from home became the norm over the past two years (2020–2021). The lawyers 'billables', that is meetings, conferences, court appearances and mediations, were and are conducted on electronic platforms like Zoom. The pandemic has achieved—through sheer necessity—remote working for lawyers. This would not have been conceived as possible two years ago. The benefits for

some have been significant: they include reduced overheads, increased productivity and more flexibility. It is probably safe to say that flexible work schedules and remote work are here to stay.

COVID-19 has also necessitated an increase in the use of technology for remote signing and witnessing legal and business-related documents (Dolan & Erwin, 2021). Prior to the pandemic, law practices had been increasingly using services like DocuSign, but (at least in the case of Victoria, Australia) it was the introduction of a legislative framework to expressly permit the electronic signing and witnessing of documents that expedited the adoption of this technology.

The world beyond COVID-19 heralds further technological innovation. The new frontier for lawyers is Artificial Intelligence (AI), being 'a collection of interrelated technologies that can be used to solve problems autonomously and perform tasks to achieve defined objectives' (Department of Prime Minister and Cabinet, 2022, p. 3). The Australian Government Automated Decision Making and Artificial Intelligence Regulation Issues Paper defines AI as 'more than just the mathematical algorithms that enable a computer to learn from text, images or sounds. It is the ability for a computational system to sense its environment, learn, predict and take independent action to control virtual or physical infrastructure' (Department of Prime Minister and Cabinet, 2022, p. 3). Legg and Bell (2020) offer the most comprehensive review of AI in the legal profession and contend that most legal disciplines offer opportunities to engage with AI. In litigation, for example, the discovery process has traditionally required lawyers to trawl through boxes of documents. Now, eDiscovery, 'the process of organising, reviewing and producing electronic documents' (Bennett-Mitrovski, 2021, p. 35), engages AI tools that can do this for them. The same can be said for transactional law, where fundamental tasks such as contract review, contract creation and due diligence can be, at least to some extent, completed or at least aided by AI technologies (Legg & Bell, 2020, p. 165). In the organisational context, the rise of regulation technology or 'RegTech' assists companies to meet their regulatory requirements and reduce costs and inefficiencies (Legg & Bell, 2020, p. 191). In the area of criminal law, AI can be used to conduct actuarial analyses including risk profiling and the use of crime statistics (Legg & Bell, 2020, p. 220).

Interesting developments have occurred in the judicial and quasi-judicial space where the concept of Automated Decision-Making (ADM), being 'the deployment of technology to automate a decision-making process—in whole or part' (Department of Prime Minister and Cabinet, 2022, p. 3), has been introduced. According to an Australian Government Issues Paper, ADM 'extends from the use of a simple rules-based formula to affirm if someone meets objective criteria, to the use of predictive algorithms, which encompass a variety of techniques including rules, but where a computer learns a model to make a decision through machine learning capabilities, rather than being programmed to execute a decision-making process in a specified way' (Department of Prime Minister and Cabinet, 2022, p. 3). There are advantages to implementing ADM, particularly in areas where the volume of decision-making is significant and the task for the decision maker is relatively simple. One example of this in the Australian context is the Australian visitor visa applications which are decided through an ADM process. To achieve support for implementation there must be trust in the decision-making algorithms and processes, and confidence that users will be protected from invasions of privacy, unfair or discriminative decisions, or decisions which adversely impact vulnerable groups (see also Lee et al.'s chapter in this volume).

At its extreme, ADM can take the form of Robot judges or 'Robojudges', where AI technology replaces a judge in a fully automated hearing. In 2016, China introduced litigation-guiding robots in its courts. The robot, called Hubao, can answer legal questions, suggest ways to resolve disputes and assist in selecting lawyers (Legg & Bell, 2020, p. 149). The progression from litigation-guiding robots to the outright replacement of judges by robots still sounds like science fiction, however, at the time of writing, an AI model, called 'Ask Ruth Bader Ginsburg', had just been released, which propose to recreate the former Supreme Court Justice's mind, based on 27 years of Ginsburg's legal writings on the Supreme Court, along with a host of news interviews and public speeches (Verma, 2022).

In view of these examples of technology being adopted in the legal profession, we turn to the experience of 'our lawyers' to explore their views on the extent to which technologies have been adopted across private practice, in-house and in the courts, and the general attitudes that they hold towards technology and its impact.

To establish a baseline in relation to technology use, we enquired into the types of new digital technologies that our lawyers have embraced in their workplace. All responded that they are using technologies to facilitate remote work, largely in the form of Zoom/Microsoft Teams, Webex (for court appearances) and Jabber (for meetings with clients in custody). Further, all responded that they are using document management systems including File Pro and Laserfiche. Many of them use legal research databases including Lexis Nexis, Jade, Austlii and Judicial College resources. Most are using collaborative document programmes including Sharepoint and Microsoft Teams and software for billing and diary appointments including TA Law and Microsoft Outlook. Our in-house lawyer also responded that he is using Workplace (Facebook for work), collective work in progress tracking using Microsoft Lists and Excel for capture, and Power BI and Excel for reporting. Both our in-house lawyer and law firm partner have employed digital document execution and digital witnessing (DocuSign) since the onset of COVID-19.

Generally, our lawyers commented that these technologies make their jobs far easier and better, have enabled remote working and better sharing of resources, and have improved both synchronous and asynchronous teamwork. While some of our lawyers expressed frustrations with occasional lack of internet connectivity, it was evident that employing these technologies, on balance, helps them in their day-to-day work and (in the private practice context) reduces costs to clients.

While our lawyers' attitudes towards the technologies they already use were embracive, their attitudes about adopting more digital tech in the future were less enthusiastic. When asked what type of technology they believe will be introduced into their work in the future, most of our lawyers were conservative in their approach. For example, our ethics lawyer commented that at present, she feels that she has the tools needed to carry out her work 'without the need for further digital technologies'.

Our barrister responded that while there may be an automisation of pleas or simple offences in some courts, this would be unlikely to affect her work due to the particular matters in which she represents clients. Our law firm partner presented a slightly greater inclination to embrace technology further in his practice, proposing next steps to include 'a YouTube channel and some form of answer bot to deal with FAQ's and

triage clients'. His motivation to adopt digital technologies is to be relieved of mundane, administrative tasks so that he can add value by doing more sophisticated tasks. He explained:

> Despite various proposals over the past two decades, time-based billing remains an important feature of how lawyers and barristers are remunerated. Legal technologies work to reduce the time it takes to do basic tasks and will come to take over increasingly more sophisticated ones. Therefore, the introduction of technologies creates opportunities for lawyers to focus on where they add real human value in terms of strategy and achieving results for clients at a greater level of sophistication than what strictly legal answers allow for.

This sentiment is reflected by Pasquale (2015) who writes '[m]any of the new software-driven "legal services" take on low-value tasks that were either rarely performed by lawyers or rarely generated much revenue for them (like uncomplicated contract drafting)' (para 6.). Dolan and Erwin (2021) hold similar views, predicting that the introduction of AI to handle simple tasks will free lawyers to undertake more challenging tasks, 'including reviewing complex contracts, managing strategic planning, handling multifaceted legal matters, developing creative solutions …' (p. 49). Dolan and Erwin (2021) note that as a consequence, legal work may become more interesting because 'complex tasks are more fulfilling than the mundane tasks that AI can perform, so a lawyer's workday will become more rewarding thanks to legal tech' (p. 49).

Graduate and early career lawyers are likely to benefit from a 'trickle-down effect' (Legg & Bell, 2020, p. 7) of technologies being introduced, with the opportunity to undertake more sophisticated tasks earlier on in their careers. Indeed, it will be interesting to see what the new generation of lawyers brings to the practice of law, given their exposure to new technologies during their university degrees. Courses on digital technology now form part of the core curriculum. Our law student commented that in a constantly evolving technological age, university students are increasingly exposed to new technologies in the legal sector, including automation of law firms through employment of AI systems researching, drafting contracts, proof-reading documents and greater blockchain developments.

In contrast to our lawyers in private practice, our in-house lawyer sees significant introductions of legaltech into the future:

> I expect all sorts of new digital technologies to be coming. We've recently launched a digital 'legal front door', and this will enable a number of new technologies like automated document production, AI document review incorporating machine learning, chatbots, and more sophisticated time/matter management and prioritisation tools.

Although this is a preliminary sample of views, it might be that the divergence in attitudes between our lawyer in private practice and our in-house lawyer can be explained by a cultural difference in the corporate counsel context where organisations may more readily embrace technology creating a culture of innovation that extends to the in-house team. Further evidence suggestive of this culture comes from comments made by our in-house lawyer who stated:

> Legal has generally sat well behind the business in terms of digital technology adoption, however, Legal does have as much to gain from such technologies as the business. The biggest opportunities for Legal are in better visibility of workflow, better sharing of resources among different legal teams, better agility to adjust to varying business needs, and better ways to manage high volume low value work that otherwise clogs up legal time.

A more positive attitude of our in-house lawyer extends to thinking around possible threats posed by digital technologies to the practice of law. For our ethics lawyer, concerns lay around the inadvertent disclosure of confidential information if digital technologies are not secure. She warned:

> Members of the legal profession will need to take increased care that they have muted their microphones on Zoom or exited a meeting to ensure confidential information is not disclosed. They will have to triple check to ensure 'reply all' is not accidentally hit in circumstances where it shouldn't.

Our law student shared similar concerns around confidentiality, data protection and privacy but in circumstances where the threat is external,

for example cybersecurity risks such as malware and phishing that can lead to serious data breaches to clients and their confidential legal matters.

Some of our lawyers expressed concern about the loss of in-person connection and what this means for practitioner well-being. Our barrister commented that there is a risk of depersonalising the relationship between lawyer and client, and therefore, services offered by a lawyer are devalued. This reflects comments made by Anthony Kearns, consultant at Landers & Rogers, that what lawyers sell is in fact *not advice but comfort* (Pelly, 2021). Hall & Wilcox managing partner Tony Macvean, in the same *Australian Financial Review* article, agreed that human connection is paramount in the legal profession, '[w]e have all talked about technology—AI and the like—for a long time now, but perhaps the emphasis should be on lawyers having to learn people skills, to get better at connecting with people' (Pelly, 2021, para. 4.). This commentary foreshadows the self-reflection undertaken by our lawyers on their value offering.

The two threats identified by our law firm partner are interesting. The first is the threat that digital technologies pose to all those in the legal profession who are unable or unwilling to embrace them. Our law firm partner expresses concern that 'some practitioners (who, because they do not embrace the technologies) risk being shut out of the game (for example, unable to keep or gain clients) where they still have meaningful knowledge and contributions to make'. The second threat identified by our law firm partner relates to the circumstance wherein legal technologies are introduced and then taken away. He expresses concern that 'practitioners forget how to do things without a particular legal technology. As cyber threats increase and energy supply becomes less certain, practitioners still need to be able to cope at a basic level to provide legal services'.

Interestingly, and in keeping with the different views expressed previously between our private and in-house practitioners, our in-house lawyer said that the introduction of technology carries with it 'no threats' and explained:

> In the short term, digital technologies will be able to remove low value, high volume work, but this will just free up lawyers and legal professionals to do more strategic and creative work. In the medium-longer term, higher value work will be able to be done with more support by digital technologies,

but there will continue to be a need for legal guidance, including in the context of the use of such technologies.

Legg and Bell (2020) similarly argue that the in-house lawyer's role will expand to safeguard the organisation and to determine whether the introduction of AI technologies complies with the law. In turn, possible threats posed by technology are mitigated and, in accordance with the thinking of our in-house lawyer, become negligible.

While a distinction can be drawn between the attitude of our in-house lawyer and our lawyers in private practice, all appeared to be cautious in their approach to digital transformation. It is possible that these conservative attitudes are a reflection of lawyers' more general disposition and training. Lawyers meditate on matters before acting and they tend to think deeply about risk. The fact that they have not yet adopted all (or arguably even a modicum) of the technologies that are readily available to them, suggests that they are taking a cautious approach. This leads us to our next exploration, to understand some of the reasoning behind what we have observed at a distance, that being the hesitancy of lawyers in adopting digital technologies.

Exploring the Lawyers' Value in the Face of Digital Transformation

Legg and Bell (2020) open their chapter on the future of the legal profession with the following: '[l]ife-threatening experiences can lead to an existential crisis in which individuals question whether their lives have meaning, purpose or value. The rise of legal AI and the joy taken by commentators in predicting the demise of lawyers could be that existential moment for the legal profession' (p. 325).

For lawyers and the legal profession, the decision-making process as to whether to adopt technologies into their practice requires a level of self-reflection on how one carries out their work, within their societal context and in alignment with their personal values and ambitions. The outcome of their self-reflection is what we now seek to explore.

To assist with framing this explorative exercise into the cautious approach of lawyers to engage with technology, we continue to draw upon the work of Legg and Bell (2020) who offer an assessment of the lawyer's value relative to the benefits offered by technology. Legg and Bell (2020) assert that there are three kinds of 'value' that lawyers are uniquely placed to provide. The first is expertise value, which pertains to specialist knowledge and skill. The second is ethics value which includes ethical responsibilities and the ethical practice of law. The third is human value, which can be described as characteristics or skills that are specific to being human, including emotional intelligence, empathy, trust, cooperation, creativity and communication.

We discussed each of these values with our legal professionals and recorded their responses. Our lawyers were asked how they contribute each of the values to their work? We then asked them, what impact do they believe introducing digital technologies might have upon each of the values? We explore the responses to these questions now, each value in turn.

Expertise Value

According to Legg and Bell (2020), 'expertise value' recognises that '[s]pecialised knowledge and skill among members has long been fundamental to the delineation of a profession' (p. 327). The legal profession, like many others, has controls that restrict entry to the profession. For example, to practise as a lawyer in Victoria, one must complete a law degree followed by a year of practical legal training. To operate their own legal practice, one must complete two years of supervised legal practice, a practice management course and, should they wish to operate a trust fund, an additional trust accounting qualification. Lawyers must hold a valid practising certificate and renew it annually, on the basis that they are a 'fit and proper person to hold a practising certificate' (Victorian Legal Services Board and Commissioner, 2020) and that they have completed the requisite continuing professional education. There is considerable effort and process involved in becoming a lawyer and retaining a

practising certificate, and consequently, according to Legg and Bell (2020), 'lawyers' expertise seems to matter' (p. 327).

The expertise offered by a lawyer, however, goes well beyond a list of qualifications. It extends to the lawyer's approach, strategy and a certain 'way of thinking'. Our law firm partner expressed this in terms of judgement and strategy:

> The main value of a solicitor is to select from a variety of different options to solve a legal problem in a way that is proportionate from a cost perspective and effective in terms of obtaining an outcome that solves the problem.

These less tangible aspects of the expertise value are articulated by Bues and Matthaei (2017), who write:

> Lawyers need to process convoluted sets of facts and circumstances, consider applicable legal rights and obligations and render reasoned opinions and guidance on the best course of action based on all of that information. A lawyer (ideally) has the ability to understand the background and context of events, general knowledge of how the world works, and knowledge of the law and its application. The work of lawyers involves a lot of automatic filtering out of irrelevant noise and focusing in on the signal (p. 94).

Bues and Matthaei's (2017) definition is reflected in comments made by our in-house lawyer who considers his value offering to include knowledge of the law, the legal and regulatory landscape, and the commercial landscape, including what industry competitors do. There are aspects of expertise value that are particular to the organisational context, working within the commercial environment and guiding the business forward. According to our in-house lawyer, this type of expertise could be defined as an additional category of value, that being 'commercial value'. He explained:

> 'Commercial expertise value' is about understanding what the business is doing, what the business wants to do more of, what challenges the business has had with previous attempts to do something similar, what other projects and changes within the business are in the works on related matters, etc.

How does expertise value hold up relative to the benefits of technological innovation? According to Legg and Bell (2020), it is a highly challenging task to replicate a human lawyer in providing expertise value. They contend that '[t]o completely replicate a (human) lawyer would mean to re-engineer a process that could produce creative, imaginative and innovative ideas and results, whilst drawing on a comprehensive set of legal information and an "experience database" comparable to an experienced lawyer' (p. 328).

This reflects the consensual thinking amongst our lawyers. Our in-house lawyer articulated this thinking as follows:

> I can't imagine much of this being able to be done by technology or it can be done by technology, in descending order of ease. For instance, it'd be easy enough to teach a technology about the directly relevant law. But it'd be hard to teach a technology about how to incorporate a perception of 'where the law is moving' by interpreting regulator correspondence on incoming law or indirectly relevant law.

Despite the limitations of technology in replacing humans, our lawyers recognised that there is potential for technologies to enhance their expertise value. For our ethics lawyer, the introduction of technologies has allowed her to focus on enhancing her expertise value by removing administrative tasks. Our law firm partner believes it would be helpful for lawyers to have another 'voice in the room' in the form of AI. He explained:

> It would assist with the quality of strategic decision making in that no one would fear asking AI the 'dumb questions'. From a costs' perspective, clients would essentially be getting two lawyers for one. In this sense, the impact would offer serious returns to solicitors in how they interface with clients.

The responses of our lawyers present a consciousness of the expertise value of the lawyer and a cautiousness as to introducing technology that may impact the value offering. However, also apparent is an openness to

the opportunity that technology presents to aid lawyers in their day-to-day role and enhance their expertise value.

Ethics Value

Legg and Bell identify the second value to be the 'ethics value'. Ethics are important to lawyers and are regarded as the cornerstone of any justice system. The legal profession is strictly regulated to ensure that clients and the general public are protected, rule of law is upheld and the administration of justice is promoted. To achieve these ends, the expectations on lawyers are considerable. In Victoria, for example, solicitors must uphold their obligations under the Legal Profession Uniform Law 2015; Legal Profession Uniform Law Australian Solicitors' Conduct Rules 2015; Legal Profession Uniform General Rules 2015; Legal Profession Uniform Legal Practice (Solicitors) Rules 2015 and the Legal Profession Uniform Continuing Professional Development (Solicitors) Rules 2015 (Victorian Legal Services Board and Commissioner, n.d.). The regulatory framework for barristers is similar.

All our lawyers responded that ethics are central in how they conduct themselves in the practice of law. Equally important to guiding their own conduct is their responsibility to guide others. Our ethics lawyer's primary role is to help members of the legal profession choose ethical courses of action. For our law firm partner, his ethical contribution to society is in steering his clients towards ethical conduct. He commented:

> The main way I contribute ethics value to my work is by discouraging clients from acting in an unlawful and improper way. Explaining to clients why they should tolerate the time, costs and expense of acting lawfully over acting unlawfully is a challenge. However, when it is achieved, it is a huge contribution to that person and to society.

The role for our in-house lawyer is similar; however, the entity to be guided is usually not an individual but an organisation. He considers the impact of the relevant legal matter on the end user of the services and whether that action achieves 'a good and defensible aim'. Where it does

not, he contributes ethics value to consider other ways of achieving business aims, 'that don't have a negative ethics consequence'.

All our lawyers expressed that it was hard for them to imagine technology being capable of replacing or replicating the 'ethics value' that they bring to legal practice. This can be attributed to the fact that, as our lawyers note, ethical obligations of lawyers go beyond those encoded into the various regulatory instruments, including those identified previously. Our ethics lawyer believed this is because 'very often, when encountering ethical dilemmas there is not a simple yes or no answer, there are often those "maybe" style answers'. Ethical issues require quiet inner reflection to determine the most appropriate course of action. Good ethical judgement therefore arguably requires something that is innately and only human.

There is justifiable concern, therefore, that the introduction of digital technologies has the potential to challenge legal ethics. Dolan and Erwin (2021) write that the possible role for AI in the practice of law poses a threat to lawyers' ethics, 'in their paramount duty to the court and administration of justice, which attaches to all lawyers including in-house counsel' (p. 49). Our ethics lawyer expressed the view that it would be impossible for a robot to exercise the degree of moral and ethical judgement exercised by a human, stating:

> A robot cannot simply be programmed to act ethically in all circumstances, because ethics cannot be reduced to simple set of rules or values. I don't believe it possible to have a technology that replaces or reduces the ethical value of a human being's moral compass.

Considerable thought must therefore be given by lawyers both individually and collectively as a profession on as to whether certain digital technologies should be adopted, based on the potential threat posed by technology to ethics. As Dolan and Erwin (2021) warn, '[w]e must remember that we are responsible for any AI or technology that we utilise in practice and ensure we do not over-rely on this to the extent our moral judgment ceases to exist' (p. 50). It is therefore sensible that lawyers would exercise caution in adopting technologies, given that responsibility

may be brought home to them for breaches of ethical or professional obligations despite the level of technological aid or intervention.

Human Value

Central to the role of a lawyer is interaction with other humans. The third value identified by Legg and Bell (2020) is therefore the 'human value', which they define as exclusively 'human' skills, including 'emotional intelligence, empathy, trust, cooperation, creativity and communication' (p. 333). Our lawyers were provided with this list of examples and asked how they contribute 'human value' to their work.

Most cited emotional intelligence, empathy and trust in their responses. For our law student, the presence of these traits is ultimately the deciding factor for a client when deciding which law firm to engage to resolve their legal matter. She comments, 'clients want genuine relationships and to know that the legal professional handling their matter is invested and committed to act in their best interests'.

The significance of human value is brought home in our barrister's comments in the context of criminal law practice:

> I think that the key skills of a barrister are to import human value, in particular empathy and communication. The human value is especially important in criminal law, where trust can take time to develop and what information might be revealed is often highly personal. Human value is critical to the role of a defence barrister as you are representing clients on what may be the worst day or period of their lives. There may be a real risk of imprisonment if they are not already incarcerated. You discuss deeply personal matters, such as mental health, childhood trauma, sexual abuse, substance abuse etc. Trust in the barrister is key for this. Many of my clients do not trust people they perceive as condescending or hurried. Trust and rapport take time.

While AI has an increasing ability to recognise human emotion and respond accordingly, it is difficult to imagine a machine offering what can be offered by a committed, empathetic and compassionate lawyer. As

articulated by Yeung and Lodge (2019), AI systems are 'inferior substitutes for authentic empathy, compassion, and concern of those with whom we share the common bonds of human experience' (p. 21).

Technology does not have to be as sophisticated as AI to impact the human value offered to clients. Our lawyers report that the introduction of COVID-19 related technology, in particular online meetings have made it harder to develop rapport, have reduced the capacity for establishing empathy and trust and, according to our barrister, in the court setting, 'make it difficult to respond to queries from the bench'.

For Luban (2016), the crucial difference between a machine and a human is the ability to 'talk back' to a client or more specifically to 'offer counter-reasons and moral suasion to the client's reasons' (p. 507). This speaks to an idea offered by both Legg and Bell (2020) and our law firm partner: humans offer moral authority, legitimacy and the ability to 'talk a client around'. Our law firm partner explained this in the context of his practice:

> I contribute human value by understanding what is important to people. As a solicitor, you can have the best legal case in the world but if you know that advancing it is going to stress your client to the point of ill health or destroy their relationship with their family, then in acting in their best interests, the only thing to do is to discourage them from advancing it. Understanding the human cost of litigation, for instance, the time, the cost, the stress, the inconvenience are the things that ultimately shape outcomes.

Understanding individuals, their circumstance and psychology was also seen as important to the organisational context. This was made apparent by our in-house lawyer who uses relationships to guide the business in varying ways, 'depending on who is instructing, recognising that different people have different drivers, respond better to differing styles of approach and provision of advice'. Again, our lawyers' responses indicate a willingness to embrace technology to the extent that, as articulated by our law firm partner, 'it will make all the lesser tasks easier and quicker so that solicitors can focus on contributing the human value'.

Final Reflections

Lawyers are called to the law for different reasons. Often, they are driven by a desire to contribute to society. For some, being a lawyer goes to the heart of who they are and how they define themselves.

The desire to help others resonates strongly among our lawyers; they see lawyering as an opportunity to 'positively contribute to society and as a way of helping others receive access to justice' (our ethics lawyer) and 'to represent those from disadvantaged backgrounds' (our barrister). Our lawyers also appreciate how 'law affects every part of our lives' (our law student) but also reflects life itself: 'I loved words, problem solving and history. And they all aligned in law' (our in-house lawyer).

For some, it's about legacy and the continuation thereof. Both our barrister and our law firm partner were raised by lawyers. Our law firm partner reflected:

> My mother owned and ran a legal office in a country town. I started working in this office from the age of 10 and I enjoyed every aspect of it; from helping people with their problems to the hustle and bustle of mail time. For as long as I can remember, I thought I would pursue a career in the law.

Traditional notions of law and what it means to be a lawyer have been passed down through generations. For hundreds of years, humans have been teaching and learning the art of lawyering. So, it is easy to see how the idea of change puts a lot at stake for both the profession as a whole and the individuals working within it. That existential moment for the legal profession, when faced with the rise of AI and other technologies, is very real.

This brings us back to the departure point for our exploration: Richard Susskind's query, are we on the precipice of witnessing 'The End of Lawyers'? Susskind's work was provocative in the same way that Francis Fukuyama's declared the 'end of history' at the end of the cold war. While statements like these may not necessarily be true, they are well placed to invite conversation and debate.

The conversation of the last few pages has been filled with self-reflections of lawyers that provide a vignette into the digital human

condition as it pertains to the world of law. As previously canvassed, our objective is not to conduct a thorough survey of lawyers, nor claim that our lawyer's responses are illustrative of the whole profession, which is broad, diverse and complex. Rather, our lawyers' responses present considerations that might shed light on the hesitancy of lawyers towards broad adoption of legaltech.

We observed that lawyers appear to be cautious in their adoption of technologies into their daily work. The extent of technologies adopted by our lawyers is limited as are their plans to adopt technology in the future. While there was a divergence of views between our lawyers, lawyers are noticeably careful in their decision-making processes around technology.

We observed that lawyers have a strong understanding of their value offering, classified by Legg and Bell in terms of expertise, ethics and human skill. We also observed that lawyers are concerned that their value offering may be negatively impacted by the introduction of technology and indeed feel that this has already occurred with the introduction of some COVID-19 related technologies. These insights may offer some explanation as to why lawyers display a cautiousness in their decision-making processes around technology.

If we were to proffer a response to Susskind's question, based on the insights of those we spoke to for this chapter and our own experience, our answer would be no—we are not witnessing the end of lawyers and that this is unlikely in the foreseeable future. Lawyers have a strong sense of their human condition in the age of digital technology, and lawyers—at least many of them—are motivated by much more than achieving efficiencies and maximising billable hours. These deeper motivations cannot be replicated by algorithms.

While this chapter has centred on the reflection of lawyers (and written by lawyers), we recognise that changes to the legal profession will ultimately be motivated by the (hopefully best) interests of clients and society at large. The introduction of technology has a critical role to play in this. As stated by Legg and Bell (2020), '[t]he combination of lawyer and AI could be a powerful step to realising equality in access to the law, protection of the rule of law, and client protections' (p. 331; cf Kath et al. in this volume).

The recognition that technology can bring great benefit to the practice of law and society was apparent in our lawyers' responses, which reflect an orientation towards their practice and concern for their clients that is far removed from stereotypes of lawyers as portrayed in much media. Our lawyers recognised that technology has the capacity to accentuate their value offering. Our in-house lawyer describes this phenomenon eloquently, and we conclude our chapter by quoting his response here in full.

> I think Richard Susskind has identified trends well ahead of them eventuating. And I think much of what he anticipated has come to fruition several years earlier than it would otherwise have, having been sped along by the disruptive forces of Covid. The legal industry has been much slower to change in many respects than the rest of industry. And generally, it only changes when there is no choice but to do so. But I think his prophetic statement can be more appropriately adjusted to say that what we are seeing is the end of the lawyer as we know that role to be. I think we are seeing the end of a lawyer who will help populate blank fields in a precedent or make basic changes to such a document. I think we are also seeing the end of a lawyer negotiating more complex agreements and giving the type of advice that they give day in, day out ([which a] chatbot [can dispense]). But I continue to see a huge need for legal minds, which are very highly regarded in business, to be helping to guide stakeholders at a more strategic level at the front end of transactions, product development, market changes, and implementation of new technology. So perhaps rather than a death, what we are seeing is a rebirth.

The practice of law, as we have seen in this chapter, is increasingly orientated towards a digital horizon and already participates in the digital transformation of legal practice. While pitfalls abound and there is much grounds for caution, in our observation lawyers are considering the journey towards a greater presence and role of digital technology carefully, so that the destination puts lawyers to their highest and best use, preserving and expanding the human aspects of the profession.

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7

The Digital Power Paradox: U.S.-China Competition, Semiconductors, and Weaponized Interdependence

Aiden Warren and Adam Bartley

Introduction

This chapter seeks to unpack the intersections between state, commerce, and security via an analysis of the emerging technological competition between the United States and China. As the 2010s revealed, there is an exceptional yet perturbing convergence in the longer-term fundamental drivers and the short-term recurring ones at the core of U.S.-China relations. Together, they are pressing this relationship toward a more competitive domain, and the ensuing competition will likely draw in a wider array of technological issues and other actors that will engender tensions and acrimony. These developments are taking place as the traditional safeguards and stabilizers to competition that were once a basis of

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relations are diminishing, if not completely breaking down. Many of these drivers are knotted to the leadership personalities, material interests, and capabilities of both states, indicating, but not ensuring, their permanence. Consequently, it is evident that relations are perhaps moving toward a new period which, unlike previous ones, will be characterized by an amplified preponderance of competition and the enhanced probability of conflict and confrontation (Warren & Bartley, 2021, p. 16).

Over recent years, the United States has waged an extraordinary campaign against Huawei, the Chinese telecommunications giant, involving criminal indictments, trade sanctions, and diplomatic pressure on U.S. friends and allies. While this links to the trade war and economic tension between the two states, U.S. security officials have maintained that the expansionary and competitive nature of the likes of Huawei (as well as Tiktok and WeChat) present a national security risk to telecommunications equipment that could be employed for reconnaissance and/or cyber-related activities by the Chinese state (Warren & Bartley, 2021). Indeed, as this chapter will illustrate, in the technology realm, great power competition between the United States and China is heading toward an increasingly disruptive state of technological decoupling with implications for greater global supply chain fragmentation and volatility. Both are aiming to secure critical technological industries and supply chains to cushion national development from shocks and influences endemic to such competition. To varying degrees, both states are adopting national resilience policies garnered toward self-sufficiency and self-reliance in areas such as semiconductors, Artificial Intelligence (AI), and quantum computing (Enderwick, 2021; White House, 2021). In examining the relationships between the state, commerce, and technology between China and the United States, the chapter highlights a major discordance between national aims and global supply chain realities. Despite pretentions to lead global supply chains in such industries (Doshi, 2021), Chinese government policies have created a growing rift between itself and those advanced global economies central to its own development and even its export industry. Deepening protectionist and nonreciprocity policies in technology and market exchange in China has emboldened Western leaders to adopt reciprocal policies protecting national technology champions, albeit within a selective network of economies based on shared liberal trade and economic values. This has

led to questions about the ability for Western states at the forefront of technological evolution to weaponize interdependence for the purposes of maintaining control over select technologies (Bateman, 2022).

In unpacking this phenomenon, this chapter examines China's military-civil fusion (MCF) and its employment of national policies, such as Made in China 2025 (MiC), to achieve its technological ambitions. It then looks at America's response, but also its networked ability to disrupt these ambitions and drive a greater wedge between China and the West. Overall, the chapter will reveal that the intersections of commerce, the state, and power are not just based on economic incentives, but pertain more so to the great power political battle over who will control the technological space, and thereby, the foothold that can be applied toward future strategic aims.

Military-Civil Fusion and Made in China 2025

From 2012–2014, China unambiguously shifted from reluctant collaborator in global affairs to active hegemonic power seeking to revise the rules-based international order. In the "new era," and one in which the new president Xi Jinping would seek to build upon a "China dream" of a "moderately prosperous society," this meant a "strive for achievement" (*fenfa youwei*) in international politics that would "shape its external environment in a favorable direction" (Yan, 2014). While initial perceptions of this change in China's foreign policy were broadly apathetic, an erosion of trust followed that, when many in the United States "woke up," as former secretary of state Mike Pompeo phrased it, a more wholistic shift in American and Western policies took place (Pompeo, 2020; Campbell & Ratner, 2018; Warren & Bartley, 2021). Once unmasked, the idea of systemic deception by China, wrote the former Australian Prime Minister Kevin Rudd (2022), began to demonstrate itself across the board in economic, commercial, military, and strategic domains.

By the beginning of the Trump administration, the domestic programs to realize military-civil fusion (MCF) (*Junin ronghe*) and Made in China 2025 (*zhongguo zhizao*) reinforced longstanding complaints that China was becoming more mercantilist, protectionist, and nationalist. Promises

made in China's ascension to the WTO in 2001 to transform the country into a market economy had not simply faded into the background. Rather, Beijing's restrictive commercial policies, its buttressed support for State-Owned Enterprises (SOEs), and its forced technology transfers suggested that it had actively sought to take advantage of American firms and revise the norms of economic and commercial enterprise in a campaign that appeared to make a joke of the original agreements (Colby & Wess, 2020; Herrala, 2021). Made in China 2025 (MiC) purported to take these norms and multiply them through a whole of government and whole of society platform that would indigenize global value chains in critical technology areas. MCF, meanwhile, would merge the commercial benefits of MiC with the military to modernize and overtake the United States.

For Chinese leaders, MCF as a national defense strategy attempts to bridge the emerging critical technological areas, or fourth-generation technologies, of the private sector for military innovation and development. This is based on two fundamental observations. The first is that global military hierarchy and therefore power is determined by the tools of statecraft and the possession of "cutting-edge military relevant technologies"—the greater the scientific edge the more precise and effective are military capabilities (Bitzinger, 2021, p. 8). The second is the recognition that acute deficiencies in the procurement, research, and development domains continue to plague Beijing's C4ISR (Command, Control, Communications, Computers [C4] Intelligence, Surveillance and Reconnaissance [ISR]) systems and warfare doctrine. MCF is not a new concept in Chinese security doctrine, and it can be traced back to the Deng Xiaoping era in the 1980s to the concept of military-civil integration (Kania & Laskai, 2021). In advancing new platforms of MCF, the cross-sectional employment of informatization—the use and collection of information, including its systemization and distribution across all sectors of society—as both a civilian and military concept has served to aid a more perceptibly fluid organizational coherence of MCF systems (Fravel, 2019).

What is new and potentially destabilizing is the emphasis on whole of society integration with the military domain and the critical importance given by China's leader Xi Jinping to this coupling (Xinhuanet, 2018).

Where Western terms like Civil-Military Integration (*junmin jie*) underscore a mutually beneficial partnership between government and private enterprise across various research and development areas, China's MCF represents a breakaway from such traditions by mandating a "state-led and state-directed programme" (Jash, 2020, p. 43). Chinese authoritative documents are clear that the design is a "deeper fusion" of government and society in the military domain with a commitment to "leap-frogging" the West in conventional and high-tech military capabilities. In the development of these ambitions since 2015, and as outlined in programs such as MiC, China Dream (*zhongguo meng*), and the 14th Five-Year Plan (2021–2025), obtaining these capabilities would include a whole of government focus on equipment procurement, digital infrastructure and economy, the science and technology industries, national defense systems socialization, and talent cultivation—in other words the coming together of government and commerce as a function of and partnership for national security (Stone & Wood, 2020; Xinhuanet, 2016, 2020).

To expand on these changes, Beijing's National Security Law since 2015 requires all domains of society, and particularly private enterprise, to work with the government to maintain national security. This was broadly defined, as such things are in Chinese legal doctrine, meaning the distinction between national security and Party interests remains unclear. In 2016, the introduction the Cybersecurity Law, and especially Article 28, reaffirms suspicions that Chinese authorities were looking to subjugate companies to government wants by forcing them to provide "technical support and assistance" in the interest of national security. This was read broadly in the West to mean that any Chinese company would be "subject to the direct orders of the Chinese government" (Feng, 2019). Other laws, such as the National Intelligence Law, since, have tightened the legal doctrine around MCF and whole of government applications for dual-use technologies.

The MiC ten-year plan reinforces the efforts of MCF to build greater national resilience and innovation in dual-use technologies. The ambition is to capture the fourth industrial revolution sectors, or "frontier technologies" (*qianyan*), with a focus on AI, semiconductors, quantum information, health and biotechnology, telecommunications, and synthetic materials in a program to create 70 percent self-sufficiency. With

this focus on MCF, and corresponding with an aggressive turn in Beijing's foreign policy, Western countries have reacted by restraining investment and personnel exchanges at the center of such ambitions. A 2017 Pentagon report, for instance, claimed that MiC 2025 had very elaborately "blurred the lines" between the private and military sectors, noting China's increasing capture of global supply chain networks and its investments in American AI, robotics, and software firms (Mozur & Perlez, 2022). The U.S. Senate's Permanent Subcommittee on investigations in 2019 released a staff report describing the findings of China's research and investment drive as including an aggressive and coordinated "global campaign to recruit overseas S[cience] & T[echnology] experts," which include its Thousand Talents Scholarships Plan. The investigation found that the scholarships required members to violate U.S. research values and sign non-disclosure agreements with Chinese institutions (2019, pp. 7–8; White House, 2020). These investigations into the purported long-reach of the Chinese Communist Party into the United States spurred questionable investigations into Chinese-origin American citizens and overseas Chinese living in America engaged in sensitive technology areas at universities and think tanks (Burke, 2021).

The ramifications of China's increased techno-nationalist lean in domestic and foreign policy, and the West's broad reactions, are illustrated in the decoupling of next generation technology industries between these states. Since 2017, these states have toughened foreign investment risk review boards, beginning with the United States, and followed by Japan in 2018, India in 2019, and Australia and Canada in 2020. In the EU, Chinese SOEs have dominated Foreign Direct Investment (FDI) in a behavior defined as technology and asset seeking—aimed at benefitting China's domestic development ambitions at the expense of others and particularly Western businesses central to global value chain networks (Brennan, 2015; Wu, 2011; Brennan & Vecchi, 2021). Strategic purchases have included the German robotics company Kuka, data specialists giant Data Artisans, mechanical engineering company Putsmeister, and UK chipmaker Imagination. In Sweden, more than half of all investments by Chinese businesses in recent years was found to have fallen within the strategic focus areas of MiC 2025 (Braw, 2020). Attempts by the EU to address issues of reciprocity in Chinese investment markets

have been made, such as in the EU-China Comprehensive Agreement on Investment (CAI). However, these measures have amounted to little gain. The fate of the CAI is now uncertain due to China's sanctions against various EU members and personnel and over the objections to Beijing's implicit support for Russia's invasion of Ukraine, the exploitation of Uighur peoples by Chinese companies, and Beijing's economic sanctions against Lithuania (Godement, 2022). Meanwhile, in late 2020, in response to China's investment practices, the EU instituted the EU Framework for FDI to screen sales of sensitive technologies considered to fall within national security—signaling a distancing between policies and interests of the EU and China on commercial exchange and acquisition (Ghiretti, 2021; Ewing, 2020).

Whether or not such strategies for national technological development in China reflect a more benign Chinese grand strategy, determined Chinese efforts to control, buy up, or steal key elements of technological infrastructure have created a more hostile image (Gill, 2022; Bateman, 2022). In the United States, responses to China's MCF and MiC 2025 has led to the expansion in Congress and the White House of legislation limiting the transactional domain for goods and services. More concentrated and critical than their European counterparts, these initiatives have included tightening the International Traffic in Arms Regulation (ITAR), which covers all items with critical military or intelligence components; the 2018 Export Control Reform Act (ECRA), to buttress U.S. leadership in areas of science and technology; the Export Administration Regulations (EAR), to reduce dual-use capability items with military end users; and the Commerce Department's Entity List, designed to bar the importing of any American products likely to be used contrary to U.S. national interests. Since 2018, the number of corporations now on the Entity List has quadrupled from 130 to 532 (Bateman, 2022).

As these mutual antagonisms demonstrate, the center of gravity in great power competition between the United States and China has been squarely located at the intersection of commerce, technology, and government. The Biden administration, more strategic than its immediate predecessor, has sought to build upon these competitive features by ramping up investment in critical technologies, first under the Executive

Order on America's Supply Chains to critically examine America's exposure to international shocks (and indirectly China's control of critical U.S. technological systems), and later the U.S. Innovation and Competition Act, and the America COMPETES Act.

Semiconductor Competition

These trends in the global economy reveal marked changes in approaches by states to trading and investing with China. From rising trade disputes to a broader rejection of trade agreements, the disintegration of reliability in key markets such as Hong Kong and Xinjiang, and broader lockdown measures in China which have created global supply chain bottle necks, dismantled long standing assumptions that superior government intervention in China could temper the shocks extant in other markets (Enderwick, 2021). These assumptions now appear to be breaking, if slowly (Strumpf, 2022; Huld, 2022). Chinese economic sanctions against Australia and Lithuania, combined with Beijing's tacit support for Russia's invasion of Ukraine, alleged exploitation and imprisonment of ethnic groups in China's northwest Xinjiang region, and a deepening of economic crisis in China have further caused Western governments and businesses to shift their economic and policy priorities. In Eastern Europe, for instance, Lithuania, Latvia, and Estonia have terminated engagement with Beijing's China-CEE business and development cooperation platform (formerly known as 16+1) over political concerns. These have also coincided with China's aggressiveness toward Taiwan and its lackluster engagement with the Baltic states (Bērziņa-Čerenkova, 2022).

The implications of these broader trends on national strategies to "catch up" in key technology areas are considerable. In the area of semiconductor manufacturing, highlighted as the new oil, a broader disengagement between emerging Chinese companies and Western leaders has already begun.

Semiconductors, or integrated circuits, are the most important components in electronic devices. Critical breakthroughs in advanced production capabilities and electronic design automation (EDA) tools have led to rapid increases in critical processing power and energy efficiency,

pivotal to evolutionary leaps in quantum computing, AI, and hypersonic missiles (Young, 2022). To China's plans for MCF, and on the basis of national security doctrines forming on informatization and intelligentized warfare, creating self-sufficiency in advanced semiconductor values chains has become a top priority—worth collectively since 2017 close to 380 billion Renminbi (Yin, 2021). For Western states, this self-sufficiency has been conceived as having the potential to disrupt global supply chain networks while also isolating China from the external influence provided by an embedded interdependence of key value chains. If economic interdependence raises the costs of conflict, decoupling these linkages at a time of great power competition is likely to lower the barriers for coercive activities and even conflict (Keohane & Nye, 1977; Drezner 2021).

In 2023, the state of semiconductor manufacturing is defined by the vertical and horizontal integration of highly specialized manufacturing firms that make up the most advanced corporations in the global value chain. At the most advanced level of 7 and 5 nanometer processing nodes, this chain includes core Intellectual Property (IP) and design companies (Qualcomm, Nvidia, Texas Instruments) located primarily in the United States, semiconductor manufacturing equipment (SME) specialists in the Netherlands (ASML), core wafer production and foundries in Taiwan (TSMC) and South Korea (Samsung), with assembly, testing, and packing in China (Jingsu Changjiang Electronics Technology [JCET]).[1] This global value chain worked well as long as no one state attempted to contain the chain within their borders or, in addressing political differences, attempted to deny others from access to the product. In recent years both of these outcomes have occurred. Xi Jinping's modernization drive in critical technology areas has taken up key space within the 14th Five-Year Plan, highlighting the Party's desire to develop an indigenous semiconductor supply chain impervious to external manipulation (Xinhua, 2021). This drive has been reinforced by a growing consensus in China that Washington has adopted a chokepoint strategy to constrain China's technological development and maintain advanced technological

[1] Nanometer designation refers to the miniaturization of semiconductors. Smaller nanometer nodes produce greater transistor density which both increases speed and decreases power consumption, making them more efficient and compact.

leadership (Yin, 2021). In the United States, Donald Trump's sanctioning of the Chinese technology firms Huawei and Semiconductor Manufacturing International Corporation (SMIC) in 2020 illustrated that the US was seeking to place blanket licensing requirements on any firm capable of manufacturing 10 nanometer chips and below, ostensibly to account for what was seen as China's forced technology transfers policies disadvantaging American businesses (Whalen & Nakashima, 2020). These policies were contextual to the broader threat perceived in China's MCF and Made in China 2025 strategies, which relied on advance semiconductor technologies.

In China, semiconductor indigenization has been completed to the point that it now has a presence in every step of the value chain. This is a significant step. Where circuit foundries, design, memory chip manufacturing, semiconductor materials, semiconductor equipment, EDA tools, IP cores, and packaging and testing are highly fragmented in the West, China has managed to bring them together. The caveat is that this chain exists for mostly 28 nanometer processes used in everyday electronic devices. The gap between 14 nanometer chips that Chinese companies like SMIC can now produce and the 7 and 5 nanometer chips is still significant. Weaknesses in the EDA and SME domains will require Chinese companies to continue to maintain its dependence on foreign corporations at a time when many have been forced by their home states (and in some cases by the United States) to restrict technological transference.

This has been the case with ASML, the Dutch SME conglomerate which has been forced to abandon plans to sell Extreme Ultraviolet lithography (EUV) machines to Chinese chipmakers. These machines play a critical role in the development of next generation chips and so far ASML is the only company, worldwide, to manufacture and develop these capabilities. But the machines also contain American IP. Washington can deny export licenses extraterritorially if products made by foreign firms contain more than 25 percent of American IP, giving decision-makers considerable leeway to control various parts of the value chain. Because American firms decisively lead in semiconductor research and

design (R & D), their IP feeds into all other segments of the supply chain giving the United States broad international reach (Kann et al., 2021). But the point also stands to illustrate the broader ability for Washington to weaponize interdependence in the value chain, and on this point, diplomatic measures have been brought to bear. Despite estimates by ASML that American components did not actually meet the 25 percent threshold, for instance, the Dutch government was pressed to lean on ASML due to its commitments under the Wassenaar Arrangement, forcing ASML to comply with the Trump administration's requests. The Wassenaar Arrangement was set up to control dual-use goods and technologies with the objective of preventing unauthorized transfers—under which lithography machines fall (Federal Register, 2021; Goldman, 2022).

While both the United States and China have leveraged domestic and international networks to control access to the semiconductor value chain, the superior networked interdependence of the United States presents clear challenges for Chinese leaders. Collectively, America constitutes 39 percent of the semiconductor value chain with Japan, South Korea, Taiwan, and Europe making up another 53 percent. For China, this represents an allied coalition that enjoys a competitive advantage in every segment of the supply chain (Kann et al., 2021). Even with China's drive to indigenize the semiconductor value chain, the demand for chips has increased at the same time competition has risen. Chinese imports of semiconductors in 2020, for instance, continued to rise by close to 84 percent of demand or US$378 billion even as improvements across the sector in China were made (SIA, 2021; Segal, 2021).

American pressure on other sections of the supply chain, including attempts to re-shore manufacturing in the United States and build semiconductor alliances among global partners, has further reinforced competition. The Biden administration's Chip 4 Alliance proposed in March 2022, for instance, seeks to bring together the United States, Taiwan, Japan, and South Korea in what some have described as an attempt to fortify its supply chain and provide "breathing room to recapitalise its industrial based in the sector" (Davies et al., 2022).

The Limits of Weaponized Interdependence

The discussion so far has led to a general conclusion that the security discourse has in many ways monopolized the future of semiconductors and other critical technology industries. This has been the case in both the United States and China, although it is worth making the point that this began in Beijing. The Trump administration's policies were in this case reactive, albeit in a fashion that did not account for the "chains of consequences" associated with such disruption (Jervis, 1997). According to a report by the Boston Consulting Group, unilateral U.S. restrictions on trade in semiconductors to China would lead to a broader erosion of America's competitive position (Neuffer, 2020). In China, writes Yin (2021, p. 135), the irony is that this sustained pressure from Washington has forced companies to become more "aligned to their government's goal of indigenous innovation than they were a decade ago." As this line of analysis implies, competition in highly networked domains multiplies the exposure to negative externalities in Hub and Nodes systems, meaning attempts to employ choke points or panopticon effects[2] are contingent upon the employment of networked (and not unilateral) decisions (Farrell & Newman, 2019; Drezner, 2021). Decisions on this basis, Robert Jervis argued, "can never do merely one thing" since direct and indirect effects are often not bilaterally determined but subject to other parts in a whole (in this case, the entire value chain) (1997, p. 12). For Trump's trade sanctions, then, the outcome proved ineffective since the sanctions penalized China and others in a network not entirely controlled by the United States.

What the analysis reveals is that as competition in the semiconductor sector deepens, the limits to weaponized interdependence have sharpened. Biden's Chip 4 Alliance has had some success in having partners sign on to its aspirational goals, but clear challenges exist for these partners. South Korea, for instance, is concerned the alliance may attempt to

[2] A panopticon effect explains a state's ability leverage interdependence to extract informational advantages on adversaries.

weaponize its semiconductor exports to China, which make up 60 percent of the nation's export market. This is in addition to South Korea's memory chip exports to China, which account for 48 percent of national sales (Gargeyas, 2022). Chinese leaders have shown in the past (over the deployment of Terminal High Altitude Area Defence (THAAD) units) that they are willing to impart costs on South Korea's private sector to seek changes in South Korean policies. Meanwhile, both Japan and South Korea have been reluctant to sign on to a deal with Taiwan that might upset broader relations with Beijing.

The challenges of weaponized interdependence are likely to continue to emerge as a more routine practice is employed. As Michael Mastanduno argues, "weaponizing interdependence disrupts an order that rests on interdependence" (2021, p. 68). As competition deepens, partners are likely to try to insulate their industries and seek alternative avenues for exchange not touched by sanctioning powers. Non-state actors are also likely to seek workarounds that require further policy changes, aggravating intended results. U.S. technology firms, for instance, have continued to sell restricted equipment to Chinese buyers through loopholes discovered in export control laws (Segal, 2021). Meanwhile, a major concern is that broad-based export restrictions that impact countries in the supply chain, including U.S. partners, may incentivize manufacturers to "design out" and avoid purchasing within American value chains altogether (Brown, 2020).

Costs to soft power perceptions are also likely to increase, blunting the instruments of state power. The employment of SWIFT (the Society for Worldwide Interbank Financial Telecommunications) sanctions against Russia over the invasion of Ukraine caused significant concern in non-Western states that renewed interest in alternative platforms such as China's Cross-Border Interbank Payments System (CIPS) (Eichengreen, 2022). In other areas, China's economic statecraft against South Korea, Taiwan, Philippines, Australia, Japan, Lithuania, and Norway, and the networked influence it derives from overseas Chinese networks, have incited broader patterns of thinking about economic and commercial relations that are likely to limit China's access to foreign IP more

generally (Chang & Yang, 2020). The sanctions against South Korea in 2017 over the THAAD issue, for instance, caused business leaders in Seoul to prioritize diversifying markets, including moving chip factories to the United States. Within this network, China is more vulnerable than is often given credit. As Gargeyas argues, Washington's export restrictions have caused Chinese firms to rely more heavily on South Korean firms Samsung and SK Hynix, indicating that any attempt to impart sanctions on South Korea would harm their semiconductor ambitions (2022).

Just as U.S. attempts to leverage its political authority in international semiconductor structures have met resistance, China's increasing employment of market restrictions has deepened competition that initially leaned in its favor, ensuring those current and global technology networks become increasingly closed to it. Notwithstanding the negative perception of MCF and MiC 2025, since 2018 the CCP's central office has instructed all public sector entities as well as government establishments including schools, hospitals, universities, transportation, and SOEs to remove all foreign computer equipment and software (Yuan & Nian, 2019; Bloomberg, 2022). More recent bans on foreign-made medical equipment have forced companies to trade between leaving the market or exchanging core technology IP for access (Tabeta & Wakasugi, 2022). In this respect, improving the country's technological position is likely to prove more difficult as Beijing seeks to isolate itself from foreign competition. Indelibly, China's MiC 2025 and other indigenization schemes, combined with its more strident MCF program and aggressive foreign policy, are likely to prohibit the very self-reliance that it seeks. On this point, the literature on "catch up" strategies is clear: foreign technology and knowledge play a pivotal role in development strategies. To move from merely imitative designs to innovative learning, corporate actors need deep and varied access to international networks and linkages at every part of the value chain. In the domain of "frontier" technologies, great emphasis is placed on "the synergistic combination of internal and external knowledge channels" (Enderwick, 2021, p. 46), a factor of reconciliation China's leaders will find more difficult to square as competition deepens.

Conclusion

As states seek to build upon national security foundations, whether through the independent search for military security or in direct response to the rise of new threats, the continual rise of advancements in critical technologies will create further uncertainty. The management of these emerging, and possibly game-changing, challenges to existing differences will put a premium on the ability for policymakers to avoid their escalation in ongoing confrontations. The scholarship on this broader discourse has partially met this expanding emphasis on the new great power conflict, although the continued struggle in assessing material and ideational dynamics and perceptions of shifting power across the world is evident. In this context, differentiating the former lessons of the Cold War struggles from the new conditions of the twenty-first century will require innovative, multi-disciplinary approaches in adapting to military-civil fusion and semiconductor competition, for instance, and seeking to understand how such operations can drive perceptions and shape policy choices.

In coming out of the COVID-19 fog, commentators and policymakers have differed over the kind of world the contagion will leave behind in its wake. For the most part, they have all argued that the world we are entering will be profoundly different from what existed before. Some envisage that the pandemic will create a new world order led by China; others believe it will prompt the demise of China's leadership. Some say it will put an end to globalization; others hope it will spur a new age of global collaboration. And still others have argued that it will amplify nationalism, destabilize free trade, and lead to regime change in various states—or all of the above. However, it is evident that the world following the pandemic will not necessarily be fundamentally different from the one that preceded it. In this regard, COVID-19 will not so much change the rudimentary direction of world history as accelerate it. The pandemic and the response to it have uncovered the underlying characteristics of geopolitics today. As a consequence, the crisis promises to be less of a defining juncture than "a way station along the road that the world has been traveling for the past few decades" (Haass, 2020). In this

environment, deepening and intensifying bilateral competition, with its fundamental origins, will necessitate that U.S. presidents consider more imaginatively their positions on strategies to tackle the challenge, involving those options that seek to hinder and/or dull Chinese power as it expands and diversifies. As this chapter has discussed, obtaining an equilibrium in U.S.-China relations between cooperation and competition will be increasingly difficult to achieve as the latter becomes more pronounced and the former contracts and is viewed to be of limited value. Not surprisingly, the emergence of a technology war in select critical technology areas such as semiconductor competition, looks to exacerbate tensions that have long been in play since 2012.

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8

The Political Economy of Digital Educational Content and the Transformation of Learning and Teaching in Global Higher Education

Christopher Ziguras

Introduction

While much has been written about the digital transformation of global higher education, there has been much less attention on the impact this is having on the types of learning resources being used by educators. 'Educational content' is a shorthand term to describe a wide range of digital learning resources, including e-textbooks, online manuals, tutorials and how-to guides, instructional videos, simulations, podcasts, games and even recipes, as well as many other formats. Throughout their careers, today's university students, wherever they are in the world, will be regularly accessing a wide range of educational content in their professional and personal lives, some of it required by employers, some of it sought out proactively and some pushed into their feed by algorithms.

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Over and above the educational value of any one piece of content, there is an important educational value in preparing our students to be able to engage in a thoughtful and discerning manner in crafting their ongoing learning journey. However, there are a number of structural challenges that universities and individual faculty members will need to consider, arising from the increasing power of external content providers in increasingly globalised digital learning environments.

This chapter explores the political economy of educational content production and use in higher education. While much has been said about the commercial power of corporations through their dominance of textbook production, and the movement by educators to provide open educational resources (OER) is well-documented, here I will argue that the market for educational content has in fact become more complex in the digital era, as many more producers enter the market. Academics are now regularly using freely available online content from a wide range of sources and producers, much of which is commercially, politically or ideologically motivated. Sponsors of such content include governments, large corporations, industry lobby groups, thinktanks and activist organisations, all of which are increasingly active in producing content suitable for use in higher education, especially in high-income countries where many such organisations have sizeable budgets for advocacy campaigns.

The central place of digital educational content in twenty-first-century higher education has been made possible, perhaps even inevitable, by the prior transformation of educational hardware and software platforms. 'Computer-based' learning, initially using CD-ROMs, first emerged in the 1980s, and since that time the digitalisation of higher education has proceeded at an uneven pace, punctuated by waves of hyperbole. The dot.com bubble of the late 1990s spurred many institutions to invest heavily in developing online degrees, create e-learning consortia, and to expect a rapid transformation in teaching practice. The Australian and UK governments commissioned research on how new media would facilitate 'borderless' higher education. They saw digitalisation not only transcending national borders but also erasing distinctions between the commercial and educational spheres, and the worlds of learning and work (Cunningham et al., 1997; Cunningham et al., 2000). University of Pennsylvania president Judith Rodin told the *New York Times* in 2002

that "In the next 10 years, there will be much more flexibility in teaching modalities", due to the widespread use of computers. "The standard college lecture will be pretty much a thing of the past. The teacher of the future will be more of a mentor and less of a didactic lecturer", she predicted (Zimmerman, 2020, pp. 220–21).

Those who predicted a rapid transformation were to be disappointed, despite the many millions of dollars that were invested in this first wave of edutech start-ups (Ziguras, 2018). Writing in 2005, Liber reflected that the impact of computing on learning in higher education "has not been as great as expected", positing three key reasons for the slow take-off of digital learning. First, digital educational resources quickly became redundant as computer hardware and stored media technology evolved. For example, CD-ROMs were the preferred platform for educational multimedia in the 1990s, but these became unusable as CD drives disappeared from computers around 2010. Second, it was difficult to adapt the content to teachers' specific contexts, so content tended to be limited to the most common and standardised topics, such as anatomy or American history, rather than other disciplines where curriculum was more diverse. Third, education media was expensive to produce and sales in the higher education market were limited, for reasons outlined below (Liber, 2005).

One solution was to produce much smaller and less ambitious 'learning objects' that use standard digital file formats (pdf, ppt, jpeg, mpeg, etc.) to improve interoperability between devices and reduce redundancy over time. The smaller chunks of content were more readily able to be selected and recombined by teachers, who could incorporate multiple small digital products into a larger learning experience (Liber, 2005, p. 366). We have seen a proliferation of millions of discrete digital resources that are often used as learning objects, including images, videos, illustrations, animations, games, quizzes, data visualisations, virtual reality programmes and more recently micro-credentials.

The digitalisation of higher education requires a significant proportion of universities' budgets to be devoted to technology. Because the costs involved do not vary significantly between high-income and low-income countries, this has led to a serious digital divide between universities that are affluent enough to be able to afford to maintain a large ongoing expenditure on hardware, software and enterprise systems, and those that

are not. Here I find the simple typology put forward by DeVaney et al. (2020) a useful way to distinguish between institutions at different stages of this digital transformation. DeVaney et al. use the term 'digital newcomers' for those institutions which have little experience in online learning and no systematic use of education technology such as learning management systems. 'Emerging adopters' are those which have some experience with online learning, some history of use of educational technology and pockets of expertise. 'Advanced institutions' have extensive experience in using digital tools, and in which some aspects of online learning are normal element in most students' experience. There are very obvious global inequalities shaping the degree of development of institutions.

Issues of inequalities relating to digital learning content also pose new challenges for educators worldwide. Lecturers are increasingly required to curate content that, while free to use, may contain advertising and be sponsored by organisations with political, commercial or other motives, and educators may be wary of imposing these on our students. We must also confront the cultural hegemony that shapes the range of educational content that is available to lecturers; this is evident in the dominance of English language content and the market power of content producers based in the United States. For example, try searching online for a short explainer video on the concept of 'the tragedy of the commons' and you will find many suitable options to choose from, but try searching for video content on the same concept in Indonesian, 'tragedi kepemilikan bersama', and the options are very thin indeed.

While in the Global South access to technology is an enormous issue, once this is available, the quality and quantity of content available will in large part drive adoption by academics. While we are seeing a rapid rate of expansion of digital learning resource use in English-medium education, we will very likely continue to see very slow adoption of digital content in systems where English is not widely used. This is likely to accelerate the use of English in higher education worldwide, as it becomes readily apparent that high-quality educational resources are widely available in English, but very little in local languages.

Unsurprisingly, given these inequities, most universities in developing countries are 'digital newcomers', whereas most universities that we might

classify as 'advanced institutions' are in high-income countries. Clearly, the lack of capacity to afford institution-wide digitalisation will continue to severely impede the adoption of digital educational content in many of the world's universities. In this regard, little has changed since Altbach's (1981) seminal essay on the persistence of structural inequalities—there remains a set of powerful 'core' countries that drive innovation and a much larger set of 'peripheral' countries which strive to catch up, but which are unlikely to be able to match the rate of digital transformation underway in high-income countries.

Who Chooses? The Lecturer as Content Curator

Lecturers are the key decision-makers in relation to every form of content, including choosing textbooks, finding free resources, requesting, using or ignoring institutional licences. As content proliferates, academic work becomes less focused on producing content and more about curriculum design, curation of educational content produced by others and, most importantly, assessment and feedback to guide students' learning. With each wave of digitalisation of higher education, there have been predictions that shareable and scalable content would reduce the need for human contact with students, but with each wave we have seen that this is not the case. In a world in which information is plentiful, and educational resources are readily available to anyone with an Internet connection, the ability for students to establish relationship with a wise human guide becomes one of the central selling points for formal education over informal self-directed learning.

In institutions that employ competency-based education, and where lecturers have considerable autonomy in how to teach, curating educational content is relatively straightforward (Educause, 2014). Curriculum design typically begins with a set of learning objectives that align with overall programme objectives and with graduate needs, and the lecturer's task then is to develop a sequence of learning experiences (readings, viewings, activities, tasks) that allow students to develop and demonstrate

those learning objectives. It is easy in this model for a lecturer to pick and choose content, and also for students to search for and use other content that they feel helps them.

Who Pays? The Economics of Digital Content

Quality educational media can be expensive to produce, requiring both content experts and creatives with specialised production skills. The same is true, of course, with commercial textbooks, which required teams of graphic designers, editors, reviewers and marketers. The textbook business model involved pitching a textbook to a lecturer, who then mandates it for their students and has students each purchase an individual copy. With the proliferation of digital educational content, we can distinguish three different revenue streams from the point of view of educational institutions:

- Student-licensed content, typically requiring students to purchase individual licences, for example digital textbooks
- University-licensed content, which the institution subscribes to so that students and staff can access freely, for example LinkedIn Learning
- Free content, usually funded by the producer, by a sponsor or by advertising, for example TED Talks

The difficulty of developing viable business models for each of these has significantly slowed the development of educational content in higher education since the first applications of computers in universities decades ago. Let's consider the challenges involved in each model in turn, before then considering the implications for global higher education.

Student-Licensed Content

The dominant form of print educational content, the textbook, has been slow to migrate to digital learning. A key impediment was that commercial publishers resisted making their textbooks available digitally out of

fear that piracy would significantly cut their revenues from book sales, just as has happed with album sales in the music industry. Expensive printed textbooks have proved surprisingly resilient despite a concerted effort to wean universities off their dependence on commercial publishers in order to reduce the cost of education for students. Clearly, it would be much simpler for students if they could access a digital version of the textbook through the university library, as they have become accustomed to doing with academic journals and monographs. However, publishers' business model relies on being able to sell individual digital licences to each student rather than a single licence to a university.

For decades, when publishers did produce digital versions of textbooks, digital licences were bundled along with a print copy, and the digital version added little value other than reduced weight in students' bags, often being simply a pdf of the text, sometimes supplemented with some simple quizzes. With an entrenched business model, the publishers' major problem was not digital competitors but rather the emergence of a market in second-hand textbooks and photocopying, which reduced the number of copies there were able to sell. They could reduce the effectiveness of this sharing economy through planned obsolescence, by producing slightly improved new editions every few years. When sales declined, as they did in the United States for a time, publishers responded by increasing prices in order to maintain revenues (Barrett, 2019).

Some academics, frustrated at the market power of commercial publishers, launched a push for open textbooks, which would fully take advantage of the affordances of digital content, allowing lecturers to themselves write, share, adapt and update digital textbooks. The open movement has been strongest in the United States, where there are estimates that textbooks account for around a quarter of the cost of an average student's higher education (Annand & Jensen, 2017, p. 2). However, the open textbook movement never really took off, due to the difficulty for lecturers in locating and selecting open textbooks, concerns about quality, and the sophisticated marketing strategies and production standards employed by commercial publishers (Annand & Jensen, 2017).

In recent years large global publishers such as Pearson have adopted a digital-first strategy, which offers students a digital licence at a significantly lower cost and makes the print copy either optional or redundant.

Once this change takes hold, publishers will likely promote their wares to faculty on the basis of the frequency of updating, the richness of video content and interactive tools, and the effectiveness of formative assessment, all of which promise a far richer student experience. In the meantime, most digital textbooks are simply a more convenient repackaging of traditional print formats (Lau et al., 2018).

University-Licensed Content

Universities are rapidly expanding the range of digital content that they either purchase or produce themselves for students. Universities have long been in the business of buying print, and more recently digital text content, from commercial and academic publishers, which they make available to students and faculty through the library. In recent years many universities have begun to also purchase licences for a wide range of digital educational content intended to support teaching, research and continuing professional development. These may include purchasing access to professional skills short courses produced by LinkedIn Learning, suites of training videos provided by software suppliers, and a wide variety of discipline-specific content, from virtual anatomy resources for health sciences to advertising libraries for media studies. Curiously, the research literature on digital transformation of universities consistently overlooks this symbiotic relationship with digital content suppliers (Castro et al., 2020).

Universities are also now producing huge volumes of digital content themselves. Massive open online courses (MOOCs), most of which universities produce, received much attention for packaging quality educational content into convenient modules, which were then shared freely. More recently, some universities have shifted their focus to micro-credentials, defined by Oliver (2019) as "a certification of assessed learning that is additional, alternate, complementary to or a formal component of a formal qualification" (Oliver, 2019, p. i). While MOOCs provided a means for universities to promote their expertise on particular topics through providing free content, micro-credentials emphasise assessment and certification of skills, often in the form of a digital badge, making

them more readily recognisable by employers and education providers. Universities are assured a market in producing digital short courses for their own community; academic or employability skills development micro-credentials can easily be recommended or even mandated for students, and the same goes for continuing professional development or mandatory training modules for faculty and staff.

In the past decade, learner experience platforms (LXP) have emerged as a means of providing structured access to libraries of learning resources, in universities and also increasingly in workplaces. Unlike an LMS, in which resources are curated and structured by the teacher, LXPs are portals that provide users with access to a wide range of disparate learning resources (Valdiviezo & Crawford, 2020). LXPs typically operate in much the same way as Netflix or YouTube, in that they allow users to search for and filter content in various ways. Advanced universities might make several LXPs available to students, faculty and staff, each providing access to a particular type of content or catering to a specific audience.

There is a stark difference between the formal curriculum and these optional learning opportunities provided through an LXP. For students, access to the formal curriculum is closely regulated, credit is clearly specified, and assessment is critical. For faculty and staff, formal training is sometimes required, particularly in relation to legal and regulatory compliance, and this likewise is stipulated, assessed and formally recorded. By contrast, the proliferation of content on LXPs is nearly always optional and undertaken to contribute to the user's professional, career or personal development.

To provide an illustration of the types of resources being developed, consider the following list of LXPs available to students, faculty and staff at RMIT university, where I work:

- Learning Lab—produced by the university for students dealing with assessment tasks, writing skills, study skills, maths, research and English proficiency, as well as a set of resources to assist staff to integrate communication skills within their teaching and assessment
- Learning and Development—produced by university and external suppliers, dealing with all aspects of continuing professional development for faculty and staff

- LinkedIn Learning—enormous platform dealing with diverse business skills, institutional licence available to all students, faculty and staff
- RMIT Creds—micro-credentials produced by the university for students in collaboration with industry partners
- Online Learning Resources—produced by the university and software vendors for faculty, dealing with online teaching
- Researcher Capability Development—produced by the university for faculty, dealing with a wide range of research and project management skills

However, the scale of all these forms of digital content, which we might call 'extra-curricular', is dwarfed by the mountains of content that lecturers produce within the formal curriculum. The bulk of this consists of recorded lectures, which, since the COVID pandemic, have been shared online with students rather than delivered in person. Sometimes lectures are recorded for students to watch at their leisure and sometimes delivered live online and recorded for students who weren't able to tune it at the time of broadcast. Either way, this constitutes an enormous library of content, contained on the university's LMS, and accessible to students at the course/unit level.

Open Educational Resources

The term open educational resources (OER) emerged out a concerted effort by UNESCO to promote more equal access to knowledge globally and was first used at UNESCO's 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries (UNESCO 2002). UNESCO defines OER as "learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, that permit no-cost access, reuse, re-purpose, adaptation and redistribution by others" (UNESCO, 2019a, Annex, 2–3).

Obviously, the Internet is full of freely accessible content, shared by millions of users on thousands of platforms, and all of this potentially constitutes OER. While many academics appear unfamiliar with the

term ‘open educational resources’, less so ‘creative commons’, many academics are informally accessing and using what they are able to find online (Baas et al., 2019). The content selected for use in university teaching is a small subset of all the freely available content online—it tends to be well-researched, expertly produced and branded by a reputable publisher. Because some investment is required to make a publication open access, some kind of return on that investment is often required by the entity putting the resources in to make the publication open access, be it advertising revenue, brand awareness or influence. So while OER are ‘free’, these are often better described as ‘sponsored’ content, and teachers need to be comfortable with who is sponsoring its production and why. According to the old adage, ‘if you are not paying for it, you become the product’; it can be our students who are being turned into the products.

While wariness of sponsors’ commercial motivations is understandable, there is in fact a wide range of organisations producing free educational content with a wide range of motivations. These include for-profit media and publishing companies, universities, public broadcasters, government agencies, non-governmental organisations and enthusiastic individuals. In some countries, including Canada, New Zealand and Australia, content produced using public funds is required to be openly available for educational purposes while others, including Brazil and Nigeria, have developed open educational resource policies to enhance access to content (UNESCO, 2019b). Governments in some countries have supported the development of repositories in which school teachers can share and access quality-assured educational content, with guidance about which subjects and which levels of study the resources are suited to, along with lesson plans and other notes for teachers (OECD, 2009).

To illustrate the diversity of producers, consider some of the educational content incorporated into the one module of a course I taught at RMIT on Global Governance:

- ‘Theory in Action: Realism’, short explainer video published on YouTube featuring Professor Randall Schweller of Ohio State University. This is published by Soomo Publishing, which produces student-licensed courseware for use in social science teaching. The

YouTube video I include in my course has over half a million views and would seem an excellent means for the company to showcase their paid services.

- 'Liberalism: where did it come from and are its days numbered?', a short explainer video published on YouTube by The Economist, a London-based publisher, who earns advertising revenue from YouTube views and promotes magazine subscriptions by providing a wide range of free content, including selected articles, podcasts and videos.
- 'Watch President Obama deliver his final speech at United Nations', a recording of the full speech published on YouTube by PBS, the American public broadcaster. PBS is funded by the US government, dues paid by stations that broadcast its content, and donations, so providing such content freely supports its broader mission.
- 'Political compass', a self-assessment quiz that plots students on a Cartesian plane, with axes representing left—right and libertarian—authoritarian beliefs. This is a not-for-profit site published by an unnamed academic and journalist.
- 'Political Typology Quiz', a similar political self-assessment quiz that categorises the user's political affiliation. This is produced by The Pew Research Centre in the United States, a not-for-profit thinktank funded by a Charitable Trust with billions of dollars in assets.

The use of free content brings a far wider range of organisations' informational products into the university curriculum, each with their own motivations and agendas.

However, in higher education, lecturers are largely left to seek out and evaluate free educational resources for themselves, in an increasingly complex and politicised media landscape. Much of the discussion of OER by educators and institutional proponents such as UNESCO assumes that the bulk of freely available educational content will be produced by individual educators, educational institutions and public-sector agencies (UNESCO, 2019b). The growing preponderance of commercially or politically driven content is routinely overlooked.

Lecturers are often not in a position to understand the implicit agendas driving the production of educational content, and especially free content, which is often driven by the commercial agendas of producers.

At the same time, lecturers are often rightly wary of exposing students to advertising in free content, both in the form of advertisements they are forced to watch and 'sponsored content' in which corporations pay producers to promote products in their programmes. Even when universities produce their own content, they often partner with commercial partners in order to fund the cost of production or to align their content with the priorities of employers.

As the use of educational content increases in higher education, we may see dominant market players in each industry seek to cement the status of their products in the field by ensuring that new graduates are familiar with their wares. For example, pharmaceutical companies may be very interested in producing content for use in medical, health science and veterinary science courses, that both provide excellent educational resources and demonstrate to students the brand's expertise on that topic, so that graduates are more receptive to using related products during their professional lives.

Conclusion

The use of licensed and open educational content in university courses will proceed apace as digital media replace print across the board. This process was sped up dramatically during the COVID pandemic. By teaching students to engage with a wide range of digital learning tools and to search out additional resources independently, universities will be preparing students for the style of professional learning that they need to master in order to be successful in the world of work. Graduates are entering a professional life which is marked by the need to continually develop their own knowledge and skills to keep abreast of changes in their field. However, as this chapter has demonstrated, the evolution of digital educational content has created a complex market for universities and educators to reckon with, and a complex informational terrain for students to navigate. Thus, educators will need to prepare students for lifelong learning by helping them to identify their learning needs, introducing them to suites of professional learning resources and encouraging them to repeat the cycle whenever they see the need to develop new

knowledge and skills. However, the entry of many new providers of digital content into the higher education curriculum poses new challenges for educators worldwide. Lecturers are increasingly required to curate content that, while free to use, may contain advertising and be sponsored by organisations with political, commercial or other motives, and educators may be wary of imposing these on our students.

As explored further by Sherman Young in the following chapter of this volume, it is the case that in an era of abundant information, higher education needs to place more emphasis on the skills required for self-directed learning, research, analysis, communication and project management. Lecturers can model these skills through their engagement with the world of digital content, demonstrating to students how they research, assess and draw on the content they consider valuable. In this way, institutions of higher education will be able to prepare students for the increasingly complex digital world of work and life.

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9

Becoming Digital? University Learning and Teaching in the Digital Information Ecology

Sherman Young

Introduction

The discourse around digital disruption in education normally revolves around a number of distinct but related domains (Davidson, 2017; EY, 2018; Pelletier et al., 2021). There has been significant focus on the *business* of learning: how digital technologies might enable efficiencies of scale and delivery. These range from the opportunities around massive online courses, the use of artificial intelligence to replicate the role of teaching, and provide personalised learning pathways, through to the possible unbundling of the vertical stack of activities (recruitment, admission, learning, assessment, credentialling) that a modern university undertakes, with a view to outsourcing part of the bundle to any number of technology-driven entities (Craig, 2017).

The second area of focus has been on the *activities* of learning: how digital technologies might enable so-called innovation. Much is made of

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how electronic delivery can replace traditional lectures—the modern classroom flipping, with more 'progressive' views suggesting that this demands reconfigured content to better suit the digital attention span (Brame, 2016). Libraries of such digital content enable new curriculum possibilities through curated or self-directed combinations of learning objects. Online technologies also offer social learning opportunities and engagement in an environment which is already second nature to many through their exposure to existing social networks. Others suggest that Virtual Reality might replace physical experiences: the different constraints of the virtual world allowing new opportunities for experimentation and engagement (Marks & Thomas, 2022). And assessment tasks can be delivered through digital technologies and in some cases marked automatically as part of those systems. In that context, machine learning tools are positioned to address that bane of the university—academic integrity—with identity, authenticity and originality all now dealt with through technical intervention (Dawson, 2020). Of course, many of these ideas also contribute to the aforementioned business of learning; the various opportunities have different costs and economies—and it is often difficult to separate the conversations.

Arguably though, there is minimal disruption to our conceptions of learning and teaching. Innovation mostly lies in using the new technologies to deliver digital facsimiles of older methods, rather than recasting the activity itself. Media theorists have observed this trajectory as 'remediation' (Bolter & Grusin, 1999); for example early radio replicated the structure of stage plays; television did much the same, and it was only when the technologies of radio and television became naturalised that distinctive new programming emerged. Whilst the names of media products remain (radio, television, movies), anyone familiar with the structure, grammar and character of a 2020s television show would find little familiar in TV show from the 1950s. This trajectory has continued through the internet-based new media—the world of YouTube, Snapchat and TikTok changing formats and structure—and reddit and discord recasting the traditional roles of the audience and critic.

Education is no different. Learning management systems, lecture capture technologies, online collaborative for a peer-to-peer connection tools have all sought to replicate the classroom experience and resulted in an

evolutionary remediation of those learning activities. In short, we are still (largely) teaching the same way, and we're more or less teaching the same things.

The provocation of this chapter is that not only should we be teaching differently, but we should be teaching different things. That digital disruption requires us to rethink and recast our approach to the how *and* the what of education. As educators, we need to acknowledge that digital technologies have done no less than disrupted the entire information ecosystem and recast the entirety of how humans engage with knowledge. Just as Gutenberg's printing press (and its lesser acknowledged Chinese predecessors) ushered in an age of information and education, whose characteristics remained dominant for hundreds of years, we are witnessing the early stages of a reconfiguration of information processes and philosophies that are beginning to shape new ways of communicating—and new ways of thinking. Arguably, the printed book set in place ideas of authorship, authority, permanence and a related scholarship. Digital information approaches challenge those ideas, which consequently forces us to rethink our ideas of education and scholarly engagement. There is a consistent conversation around the need to embed digital literacies in our student general capabilities (Bhatt & MacKenzie, 2019; ACARA, 2021)—a discussion which ranges from ensuring that students know how to navigate an excel spreadsheet to forcing everyone to learn to code. I would argue that the bigger need is to ensure that our students are properly equipped to navigate and contribute to the digital information ecosystem—which means that teachers need to similarly think digitally from the outset. And no, that does not mean knowing how to use a learning management system.

A Framework for Discussion

The context in which digital disruption (or innovation) is discussed in higher education includes constant discussion on how well (or otherwise) universities prepare their graduates for their post university life (Barnett, 2004; Burford et al., 2015; Dede, 2020). Of course, there is nuance to this discussion, which can have national—and institutional—specificities.

There is no singular understanding of what a university should do and their role is of some regular debate. Conversely, the discussions often expand beyond the university sector to encompass how badly entire school systems prepare their students for life beyond education (Astle, 2018), and it is of little surprise given that today's education systems are still largely rooted in a process designed for an industrial age that has little relevance today. Again, there is not the scope in this brief piece to interrogate that debate, but rather to posit that the current post-industrial age involves an information ecosystem that goes well beyond the imaginings of a print-based industrial era. And we are failing to understand that what we currently consider as required, or even excellent, is becoming increasingly irrelevant to digital life in the twenty-first century (Hauke, 2019).

The emergence of the internet in the late twentieth century saw some consideration of its new information possibilities (Castells, 2001; Berners-Lee, 1999). However, as its usage became normalised, critical engagement with the new information ecosystem focussed on social, political and economic impacts. It's worth unpacking how the characteristics of the new information age demand a reconfiguration of our approach to education. History provides valuable learning. The emergence of the printing press saw an increase in the abundance and availability of information. The relative mass production of information artefacts in the form of books saw a marked shift in the quantity of information and its accessibility. It is not an overstatement to suggest that the printing press was a precursor to widespread education and a range of subsequent social and political outcomes. As dramatic as the shift from orality to written cultures, print heralded consistency, notions of authorship and the dominance of the written word as a vehicle for ideas for centuries to come (Eisenstein, 1993; Levinson, 1997).

Without overstatement, digital technologies allow as significant a shift as the printing press. We are early days into the digital age and, despite the accelerated pace of change, are still grappling to understand the changes that are being wrought—and having the lived experience of rapidly evolving expectations and outcomes. Without delving into the broader socio-political changes underway, the power of networked computers, combined with increasingly clever software, has shifted the boundaries of our information production and consumption. Whilst that

has an obvious impact on our media and communications industries, the consequences for education are just as significant. In short, our education system was largely designed for a print-based world—and has little relevant for one based on bits and bytes.

Information then (print)	Education then	Information now (digital)	Education now
Scarce content	Content delivery, lectures	Ubiquitous content	Curation, active facilitation of problem solving
Authoritative	Remembering, Understanding, Exams-based	Contested	Application, analysis, evaluation and creation
Isolated	Discipline-specific, discourages groupwork	Connected	Trans-disciplinary, collaborative
Text-based	Academic literacy	Multimedia	Academic, digital, visual, cultural literacies

Scarcity → Ubiquity

There is more information available, more easily than at any prior time in history. Even in the print realm, where once there may have been a single published book on a particular topic, there are now more publications than ever. Some of this is grounded in the print tradition—newspapers, magazines, academic journals and books have been remediated into their electronic facsimiles. And beyond those traditional formats is a plethora of digital-only material—websites, wikis, blogs, forums, social media—an infinitely scrolling screen of text. All of it is digitally available with little regard for geography, chronology and increasingly, language. We live in a time where we can search for, and find, information from anywhere in the world, at any time of the day, and have it presented in our language of choice—seemingly instantaneously. Not only is information ubiquitous, but it is more easily discoverable than ever. Whilst the learned abilities of a skilled librarian are still essential, today's common search engines allow focussed access to more information than at anytime in the

past. The so-called heavenly library, a dream of any information, anytime, anywhere to anyone, is within reach (Young, 2007). Granted, there remain barriers that prevent this utopian heavenly library from being fully realised, and its accessibility and direction are contested, but there is an insistent trajectory, that technological determinism aside, suggests that a ubiquity of information into the future.

Just as the printed book allowed one small step away from information scarcity, digital technologies allow an enormous leap. Of course, the quality of our information riches continues to require interrogation—and we will address that shortly—but the end of scarcity demands that we reconsider how we engage with information. In short, whereas once it was sufficient to simply consume information uncritically from printed 'expertise' to gain meaningful knowledge, we need new and better information skills to ensure modern civilisation. It is only a matter of years since regular visits to the library were required to borrow from a limited range of printed books. It was (unfortunately) sufficient to accept the truth of those limited sources, and readers/citizens relied on the authority of those published works, the assumed expertise of those writing and editing the material. Whilst critical reading skills were desirable, there was not a lot of opportunity to compare and contrast the various sources of information, because they were so few. Today, those critical reading skills are essential: the ability to discern the value of information, to engage thoughtfully with and dissect their reliability, is a requirement of the modern citizen.

Not only is more information available, but there is an increasing amount of meta-data—information about that information. Content is complemented by context; so not only is there a list of algebraic formulae easily found, but a range of material in audio and video format from qualified proponents that explains those formula in some detail with examples. Never before has it been easier to delegate some of the more tedious components of the act of teaching. Education systems need to reflect that. Not only in what they teach (critical thinking and engagement) but in how they teach (not the remembering and regurgitation of content)

Alongside ubiquity is discoverability. Not only do the new technologies explode the amount of information available on every conceivable

topic, but they make it easier to find that information. Traditional education has demanded that students consume scarce, authoritative information, memorise it and then demonstrate their ability to recall that information under exam conditions. Educators have long understood that this particular skill (the recall of information, facts and basic concepts) sits at the very bottom of any hierarchy of cognitive functions—and it is often disappointing that higher education institutions continue to emphasise 'remembering' as a key learning outcome (in terms of assessment and activity if not in documented Course Learning Outcomes). Whilst understanding, application and analysis continue to be required in the new information age, it is arguable that evaluation and creation are now baseline requirements for engaging with digital information ecosystems, and, provocatively, that the ability to remember information is now redundant. Rather than develop the ability to recall, perhaps an updated version of Bloom's Taxonomy (Ormell, 2006) might replace remember with 'discover'—acknowledging that basic digital literacy requires us to be able to find information quickly.

Authority → Contested

The explosion of content has resulted in a reasonable amount of professional hang-wringing from those privileged with education. We have, according to some, entered the age where expertise is no longer appreciated, and instead embrace the cult of the amateur (Keen, 2007; Leadbeater & Miller, 2004; Carr, 2010). While calls to trust in science (especially during a global pandemic) have resonance, the reality is that such authority IS contested, and the education system needs to provide the appropriate learning to ensure that students have the tools to engage with material critically and appropriately. This is no easy task as it is apparent that global leaders are unable to undertake such tasks.

But at the very least, a standard teaching approach of providing a single textbook which steps one through the requirements for a discipline must be supplemented by a range of supporting literature and other non-textual materials to ensure that students are given the opportunity to interrogate the diversity of thinking and the opportunity to critically

engage with that thinking from a number of viewpoints. For a university, it is imperative that this takes the form of a scholarly approach that understands and builds on the foundations of scholarship that underpin the institution, while acknowledging the breathtaking increase in information and the pace at which it is generated.

If, at some point late in the last century, you had suggested that a huge amount of the world's broadcast television output from the beginning of that medium's existence would find its way onto a platform accessible by the vast majority of the world's population on a relatively affordable portable device, no-one would have believed you. If you had suggested that the owners of that platform would craft a very profitable business model would have brought howls of laughter from the media moguls of that era. However, the reality is that YouTube is that platform—a place where vintage sports footage, soap operas from the 1960s and clips of newsworthy events are available, uploaded no doubt from the boxes full of old videos lying around in the world's basements. And as interesting as that notion is to media theorists anywhere, and as much as YouTube contributes to the plethora of information previously mentioned, other dimensions of YouTube are even more interesting.

YouTube is either user-uploaded or user-generated content—a model for sharing information that can be seen from a range of different but related platforms like Facebook, Twitter, Instagram and TikTok. What differentiates YouTube is its searchability—which has made it the go-to place for 'how to fix your leaking tap' videos for many. It has also become the place to go for education, with many "legitimate" (Khan Academy, Ted talks) sources using it as a platform. In that sense, YouTube is an exemplar for the questioning of authority. Where once publication in print or broadcasting on television was legitimate simply because of the resource requirements to publish or broadcast, now the cost of communicating information is essentially zero. This is exacerbated by a user experience which often sees useful (wow, that really did help me fix my leaking tap) information being shared without the overhead and cost of what was previously a professionally provided service. Of course, there remain challenges. In pursuit of monetisation, YouTube's recommendation algorithms, which work adjacent to its search, focus on material designed for 'engagement metrics' rather than usefulness. It's not unusual

for YouTube to direct users down a rabbit hole of provocative but questionable material (Bishop, 2018).

For universities, this is a manifold problem. Firstly, the competition for the traditional lecture is now YouTube. Students who don't want to attend their in-person lecture for their programme of study will easily find a substitute on YouTube; particularly for ubiquitous undergraduate courses, a quick search for introductory statistics unveils many alternative videos to watch. Universities (particularly post-COVID) are now making recorded material much more widely available, but YouTube is available and accessible to all, regardless of enrolment, which leads to the second challenge for higher education. Should somebody value learning over a credential, then YouTube is free. Why apply, enrol in a degree and pay for content that for many is the equivalent of material that is freely available on YouTube (or other parts of the internet). Universities should (and do) provide more than just content—this is the entire point of this discussion. But it reinforces a suspicion that the raison d'etre of formal higher education is not the learning per se, but the credential which accompanies it. A tangential discussion could be around the business of higher education and how digital solutions such as YouTube disrupt those older models of viability and suggest new ones (provocatively, unbundling the whole stack so that universities no longer teach but only credential).

Of course, there are nuances, and with YouTube's algorithmic recommendation engine being problematic at face value, the role of a university would be to ensure that students had the knowledge and skill to navigate the algorithm's deficiencies and critically determine the value of the discovered material. The reality is, platforms like YouTube are not going away (even if specific social media platforms will come and go), and it is the role of education to educate for the reality in which we live, not a nostalgic memory of better times long past.

Isolated → Connected

Universities must also confront an increasing blurring of traditional disciplinary boundaries. The role of academic disciplines is an evolving one (Cohen & Lloyd, 2014). Whilst philosophers might argue that theirs is

the one true and original discipline, most contemporary disciplines emerged in the nineteenth and twentieth centuries, and more recent ones combine and traverse their forebears. For example, my own discipline of media studies involves sociology, communications studies, information systems, computing and political economy, and can include methodologies from anthropology, history and political science. Its graduates may go into professional fields such as journalism or public relations, whilst its research roots are often grounded in the humanities—with strong links to literary studies and more recently cultural studies.

And even as such a discipline continues to evolve, its place in a modern university is also developing. Governments develop 'Fields of Education' within which teaching or research is nominally situated and funded, but the clustering of disciplines within a university's schools, faculties or colleges is often inconsistent. For example, a Law School might exist in a College of Business (RMIT), a Faculty of Arts (Macquarie) or as its own entity (Sydney). Similar divergences can be seen in any number of disciplines. Those clusterings are important because they determine the internal distribution of funding and the priority by which those disciplines are treated (DESE, 2022).

The reality of the new information ecosystem highlights the problem of such a systematic siloing of knowledge into disciplines. At a functional level, it creates institutions within which natural bridges between areas of learning are invisible. For example, the disconnect between philosophy and business means that accountants often lack formal ethical training; the lack of connection between scientists and journalism schools might explain the inability of the public to understand the idiosyncrasies of the scientific method. And it is not only the negative outcomes which are challenging. If we flip the equation, the reality of the modern world demonstrates the interdisciplinary nature of the so-called wicked problems which face us all—as individuals, societies and even businesses (FYA, 2018; WEF, 2020). In order to properly address these challenges, universities need to ensure that its graduates are equipped with a breadth of understanding that allows to engage in a range of disciplinary discourses, or at least the ability and desire to quickly engage in a range of information types and knowledge areas. The so-called T-Shaped graduate encompasses the ideal, a graduate who has a depth of knowledge in one area,

complemented by an understanding of several others, and the ability to learn and engage with an even wider range of knowledge.

In short, the modern university should rethink its approach to knowledge, and whilst acknowledging the value of individual disciplines, it needs to understand their dynamic nature and the evolving strands of intertwining knowledge, and find ways to support productive learning in that context. A concrete example of this is the UTS Bachelor of Creativity and Innovation which emphasised an interdisciplinary (UTS) outlook through a double degree structure—and which required significant changes to break down the pre-existing barriers.

Textual → Multimedia

Another dimension of this reconfiguration is a de-privileging of text. Already, the corporate world has embraced the slide deck as the tool of persuasion, and an increasing proportion of information is communicated through graphic, photography, audio or video. Not only do many students use YouTube as an alternative to lecture attendance, but many use YouTube as a search engine (Funk, 2020) or default to video search results when looking for things. This is reflected in the rise of non-textual social media with the compression of textual messages to 140 (or latterly 280 characters) on twitter, surpassed by Instagram picture stories, Snapchat and TikTok.

Video literacy is now perhaps as important as written literacy—the ubiquity of the smart phone with its ability to shoot, edit and publish professional quality video has put the tools of video production into many, many hands. The required production skills are not as common, and we seldom have formal training in the grammar of video or how to read a film the way that school English classes are expected to teach critical reading or critical writing. Arguably, that should be the new expectation—and the ability to communicate and engage critically in different media formats would be a simple acknowledgement of the reality of the new information ecosystem

Digital literacy is not only being about to view and produce audio or video material. Critical understandings of the nature of digital

information artefacts are key to ensuring that proper civilised discourse continues. The emergence of deep fakes, the ability to easily manipulate images (and text, and audio and video), demands different critical reading skills (Debusmann, 2021). At its most basic level, we need to ensure that students are properly equipped with the very basic ability to critically understand the authenticity of a source: to be able to triangulate and discern real from fake, fact from fiction, truth from construct. Courses need to include critical searching and reading skills as core components.

One example is an RMIT course on fact checking (RMIT) and verification where students are taught to use readily available tools to interrogate material they find on the internet. In one class they are given two photographs and walked through the process of identifying key features of that photograph—from specific location, time and date, and possible participants in the photo. Such an exercise forces us to interrogate the authenticity of source material and the validity of claims made. If it's clear from the meta-data, background and image details that the photo does not represent a Mediterranean island holiday retreat but instead is a picture of a beach in a notable tax haven, then the context for the photo's caption and any claims surrounding it are questionable. The course in question focuses on different digital skills: observation, exploration, investigation and detection, creative assumptions, left-field thinking and perseverance.

But critical reading is not sufficient. Whilst many university courses encourage the student production of multimedia objects, it is rare for students to be given training in that production—partly because it is not seen as core the curriculum, partly because teaching staff often lack the expertise and partly because we expect students to be autodidacts in this regard. But that forgets the privileged place that writing has in the K-12 curriculum. We have a long history of teaching writing, not so much to produce generations where everyone is a great writer, but in the acknowledgement that being able to write informs our ability to read. But thus far we have restricted that skill set to textual elements. We need to expand that fundamental understanding of writing in other media—to ensure that our students' ability to read in other media is sufficient.

In the context of teaching, digital tools provide an opportunity to raise student engagement to higher-order cognitive functions. At its base, the

new information ecosystem could do away with the need to remember—instead, the key skill of the twenty-first century should focus on critical discoverability: the ability of students to locate relevant and accurate information quickly. Similarly, whilst understanding could never be displayed as a key cognitive requirement, the role of the classroom teacher has shifted. A plethora of 'explainer' material is available online and can either supplement or supplant the teaching role. For example, a chemistry practical might be enhanced with a range of interactive material (developed by others) which can unpack the experiment, its results and the reasons those results were achieved. The academic's time might be better spent providing theoretical context, and drawing links between the experiment and broader realms of knowledge that the specific experimental explainer would not be in a position to do. Overall, the shift in information systems provides us with the opportunity to focus effort on higher-order cognitive goals and to design our teaching approach to use the materials online to complement the expertise on hand.

To properly address the new information ecology, we'll need to consider evolving learning outcomes—towards 'thinking digitally', critical information skills and multimedia reading and writing. They would need to be supported through applied learning activities which involve collaboration, reflection and the embedded use of digital tools. Assessments should also shift further towards authenticity—with simulations, peer review and real-world experiences. This suggests a few provocations. For example, teachers might consider different roles and activities—a shift away from 'professing' and a move towards curating, facilitating and mentoring.

If one strolls around the local courthouses of Melbourne or Sydney, it is still common to see bewigged barristers wheeling trolleys of lever arch files containing case documents to their days in court. It beggars belief that the tradition of flipping through piles of paper continues when searchable electronic documents would save not just trees and trolleys but enormous amounts of time. The new skill to be learnt exists in replacing the methodical notation of printed documents and the ability to recall their precise context with the ability to construct search items, use Boolean operators appropriately, perhaps engage with sophisticated text tools, and quickly read and glean meaning from newly found textual

sources. In short, remembering is replaced by discovering as a baseline skill—upon which (for our digital lawyer) the hierarchy of understanding, analysis and evaluation are quickly applied to allow a relevant and effective legal objection to be raised.

In that context, the practice of a closed-book exam in a law course seems rather idiosyncratic—and simply pandering to traditions that belong in the era of wigs and gowns. Traditionalists would argue that such exams also serve the purpose of ensuring that the individual lawyer in practice is the student being assessed, and that if invigilated isolation were not enforced and connectivity were allowed, then it would be impossible to tell if the student's work was all their own. Provocatively again, I ask if that is still a relevant question. Our digitally enabled lawyer, if properly educated, when stumped in their courtroom, could (and should) pose questions on slack or other collaborative communication tools of their colleagues to fill in any gaps in their discovery. And if the rules of law prohibit such collaboration at the expense of the appropriate legal outcome, then the rules of law are working against truly informed justice from being served.

In some disciplines, many will argue against the premise of information abundance, challenging the ease of digital expression and creating (math or physics formula—really) and embracing the centuries of traditional scholarship—the argument often based around a need for foundational knowledge which should be 'at hand'. The information ecosystem poses new challenges. Whilst foundational knowledge may continue to exist, the reality of any discipline is the constant progress and updating of knowledge, and at an increasingly rapid pace. In 2020, the threat of imminent death was sufficient to concentrate scientific minds to develop from scratch a vaccine for the coronavirus in less than 12 months—a process that normally takes years. Even without those dire circumstances, a medical doctor is bombarded with a constantly updated taxonomy of prescribable medications, which they must keep up with. And we would certainly prefer that doctors had the skills to continue to update any foundational knowledge continually and efficiently so that leeches weren't the habitual form of medical treatment.

Having said that, many will argue that recall is a display of intelligence and that such a baseline skill is best tested by rigorous invigilated

examination. To which the response is that recall is less important than the ability to communicate ideas effectively—which may involve a modicum of recall, but the real impact is the communication not the recall—in which case, why not evaluate impact by rating communications or how effectively, for example, a student can teach someone else the required foundational knowledge. Arguments for traditional examinations are increasingly unsustainable and are increasingly made around the ability to prevent plagiarism.

This leads to my final provocation. Notions of academic dishonesty are grounded in foundations of scarcity and competition, rather than abundance and collaboration. Surely it is time to more deeply interrogate notions of academic honesty—and situate them in the real world. For example, much effort is currently exerted to identify situations where students 'collude', the definition of which is working together to gain unfair advantage in their assessment tasks. Collusion is considered academic dishonesty and when students are identified as colluding, they are punished, often severely.

But the reality of the modern workplace is that those activities which are seen as academic collusion are blurred with genuine collaboration; the 'secrecy or illegality' of the acting together is an arbitrary one imposed by the institution—because there is an emphasis on individual intellectual activity. Traditional academic thought is designed to reward individual achievement, and thus 'secret' collaboration is punished. The obvious tension is that the modern world is likely to benefit from more collaboration rather than less; the academic priority—the unwritten goal—is arguably misaligned with the outcomes we would like to see as in the broader world. Whilst there may be no appetite for collusion over the price of internet access between competing providers (although it is interesting how most such prices tend to converge without apparent collusion), my preference would be for my accountant to seek advice and collaborate with others to provide me the best possible tax return outcome. Arguably, digital technologies, connected and intelligent, could provide mechanisms by which I would benefit from a collaborative approach—whereby best practice and exemplars were shared. We might all benefit from seeking ways to encourage positive outcomes through working together, collaborating. Granted, this turn of through might provoke uneasy responses, but it is an example

of how the modern age and its information ecosystem should force us to reconsider long-held beliefs.

Importantly, information cultures are evolving. That new information ecology means that student cohorts now expect to have a digital experience akin to other parts of their lives. Social media, online commerce and an increasing reliance on internet-enabled activities across our lives have pushed expectations in uncomfortable directions, and we need honest conversations around the usefulness of our traditional university values: not simply because we should automatically respond to newer behaviours (I can hear the screams about lower standards) but because behaviours are grounded in reality. We no longer require that cars go no faster than five miles an hour with an escort with a red flag leading the way, and as a result we have benefitted from rapid transport in flagrant disregard to what were once considered 'natural' behaviours.

Douglas Adams once wrote: "Anything that is in the world when you're born is normal and ordinary and is just a natural part of the way the world works. Anything that's invented between when you're fifteen and thirty-five is new and exciting and revolutionary and you can probably get a career in it. Anything invented after you're thirty-five is against the natural order of things" (see Becher, 2014).

We are still in the early days of an information revolution as profound as the invention of movable type. And just as it took several centuries for us to understand and rearrange our world around the printed word, it will take some time to fully understand the challenges and opportunities of the digital information ecosystem. This time, though, it is unlikely to take several centuries and, as communities of scholars and thinkers, it is incumbent on universities to lead the conversations around the future of education.

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10

Digital Inter-est: On Being Together in a Global Digital World

Julian C. H. Lee, Anna Branford, Gabriella Karakas, Laura Kayes, and Kaye Quek

Introduction

In this chapter, we contemplate how the digital mediates our relationship with others. We have come to these reflections via the notion of *inter-est*. Whereas 'interest' is a common-sense word in the sense of that which engages our attention, the anthropologist Michael D. Jackson has suggested that interest is composed of inter + est (to be)—that is

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inter-existence (Jackson, 1998, p. 3). Thus, our being as human beings is "a domain of *inter-est* (inter-existence) and intercorporeity that lies *between* people: a field of inter-experience, inter-action, and inter-locution" (ibid.). For Jackson, this rendering of inter-est brings out the fact that "inter-existence is given precedence over individual essence" (ibid.). We consequently should shift our attention away from individual things, people and identities to consider how these things are in a constant dynamic and mutually constructing interplay between themselves and everything to which they are connected and engaged.

Of course, the SARS-CoV-2 pandemic has, as the present volume and others have pointed out (e.g. Soto-Acosta, 2020; Hovestadt et al., 2021), highlighted and foregrounded the digital as a channel of human interaction. Relatively early in that pandemic, the transformation of our regular *modus vivendi* was in its initial stages, and new terms were being introduced, such as social distancing. The supplanting of regular forms of interaction by digital ones came very much into view. For Julian, this transformation is captured in the song 'Social distancing' by the globally popular children's entertainment group The Wiggles. In that song, released in March 2020, they sing,

> Oh, why can't I go to Nanna's [grandma's] place?
> We're staying at home to keep Nanna safe.
> Oh, what can we do to make her feel better?
> Let's video call her or write a letter. (Wiggles, 2020)

For the purposes of this chapter, Julian wishes to draw two themes out from these lyrics. First is the manner in which certain forms of physically proximal inter-existence with others were, in fairly wholesale ways, *replaced* by digital modes of interaction (although the Wiggles mention the writing of letters, this is likely to have been the much less common option because of fears of disease transmission via physical surfaces, letter-writing remains, however, still important for those who are digitally ill-equipped, as many older persons are [e.g. Cosco et al., 2021]). While the manner and extent to which this replacement occurred for different people will differ considerably depending on a great many factors, including but not limited to the city in which one was living (the

present authors all resided in Melbourne, which was said to have had one of the strictest and longest lockdown conditions in the world [Brunt, 2021]), physical proximity became a source of major concern and often reduced as much as practicable.

A second theme that the Wiggles' song highlights for Julian is the pro-social concern expressed in it, as captured in the question, 'Oh, what can we do to make her feel better?', as well as the chorus, 'Social distancing—Staying home to help the world'. While the notion of helping 'the world' might seem bombastic or hopelessly naïve in an academic context (Lee et al., 2023), it is worth noting that (in addition to bearing in mind the target audience of the song) whereas much emphasis has been placed on instances where selfish and other anti-social behaviour occurred during the onset of lockdowns (such as physical fights in supermarkets over toilet paper), there was, at all stages of the pandemic, widespread outbreaks of human kindness and decency. In July 2020, Rutger Bregman, author of books including *Human Kind: A Hopeful History* (2020), commented in an interview that

> If you zoom out a little bit then yes you can find instances of people behaving in a little bit of a nasty way, hoarding toilet paper or something like that, and we can count on the press to really focus on that, day after day, this was especially in the first weeks. But I think we can say now that actually most of the behaviour has been cooperative and prosocial in nature. And indeed, it is pretty astonishing that billions of people around the globe very quickly, quite radically, changed their lifestyles to stop the virus from spreading further. That is the real headline to me. (LSE, 2020)

What Bregman highlights, for Julian, is the commonality of people adapting their inter-being—their inter-est—not only to protect themselves but interests of other people's health and wellbeing. As one example of thousands, but one with a connection to the authors of this article, we have the privilege of having as a colleague Jing Qi, who supported arrivals from China who were required to isolate alone and had little means of acquiring food to sustain them during their quarantine period (SBS News, 2020).

This chapter, then, is a reflection on some ways in which our being together evolved and is evolving as a result of digital channels being

increasingly prominent in that inter-action. The authors of this chapter reflect in turn upon a facet of our digital inter-being. As we were all teaching and engaging with students as the lockdowns in Melbourne came into force, we begin with Laura Kayes' recollections of the transition from face-to-face teaching to online teaching, and how this clarifies the advances still required of online interaction channels to recapture some of the informal but vital elements of human interaction. The importance of human interaction is always important, but perhaps especially so in mental health therapy contexts, and here Gabriella Karakas discusses her experiences as a counsellor, and whereas Laura's emphasis is on connection, Gabriella's focus is on the deepening of relationships. Digital interpersonal engagement takes several forms, but foremost among them is email, which as Kaye Quek notes is among the most maligned, but is not without redeeming elements. Similarly often maligned is social media. However, before concluding with Anna Branford's reflections of her experience of the pandemic mediated by social media, Julian Lee warily considers that which underpins which posts and whose posts we encounter on social media—algorithms—which also increasingly influence what and who we digitally encounter, and how we be together online and off.

Connecting with Students Online

University classes before the pandemic had a kind of ritual: students greet each other at the escalators or elevators or entryways, sharing confidences, students who are late run through doors puffed and holding the coffee that made them late, chairs get turned towards one another or dragged to corners where power points are, a settling conversation continues while the teacher complains about the technology not working, a silence settles and then the class begins.

Social or non-task-oriented talk, known as phatic communion (Coupland et al., 1992), in these face-to-face settings is usual and encouraged. Whispered chat and space for connection co-exist with task-oriented instruction and collaboration. Universities are the physical site where students form friendship bonds, learn to collaborate successfully

and try out their voices amongst their peers (Pittman & Richmond, 2008; Goguen et al., 2010). However, the onset of the pandemic and the shift to online teaching at university brought the experience and importance of phatic communion to the fore for Laura, who in 2020 experienced the shift from face-to-face classrooms to digital classrooms as both a student and a teacher.

As online learning becomes increasingly prevalent in the wake of the pandemic, and we leave physical spaces more and more (Adedoyin & Soykan, 2020), we should recall the feelings of dislocation and separateness from one another experienced in the initial period of the pandemic and the shift to online learning and teaching; these recollections can bring into focus crucial considerations about computer-mediated communication (CMC) and tools such as visual communication apps, with respect to their impacts on the ways teachers and students interact in an online environment.

For Laura, the experience of the first weeks of online teaching in 2020 provided a dual context as she was both student and teacher. She was, as a student, finishing a Masters of Teaching while, as a teacher, coordinating a class called 'Introduction to Australian Society' for exchange and International Students in Australia. Although Laura's online classes as both student and teacher were run on the same platform (Collaborate Ultra), the ways in which social connections were maintained and fostered varied substantially.

Her experience as a student was terrible. Teachers ran all-day seminars with little technological confidence; these online seminars would last for six hours with two 20-minute breaks. Frustrated teachers would call out, 'can anyone hear me?' to an apparent void, as no students were urged to engage with their videos or microphones. Information-dense PowerPoint presentations were read out loud for hours on end. Feelings of exhaustion, apathy and even anger at the standard of teaching were felt by Laura (Ebardo et al., 2021). This might simply be because the technology was new to these instructors or because they lacked faith in the platforms, echoing more than a century of societal rejection whenever cutting-edge technology enters the scene (Morrison & Gomez, 2014). Laura's negative experience as a student at the time might have been due to 'Zoom-fatigue', which has been defined as focus decreasing with time in an

online corporate or school environment (Nesher Shoshan & Wehrt, 2022). But, for Laura, the worst failure of her experience wasn't only the unease with which we adapted CMC. It was that social interactions among students were not nurtured or supported in any way. When they signed on to the platforms, it was task-oriented class time; when they logged out, they were isolated in their own homes. While isolation can do doubt occur in in-person environments, this is especially likely online and so perhaps requires additional and deliberate attention. Teachers were primarily concerned, rightly or wrongly, with how their lectures and content would adapt to an online environment and how they would deliver on their courses' learning objectives. The loss Laura felt the most was connection with her classmates.

In view of her own experience as a student and what she needed most from her time together with teachers and fellow students, Laura decided in her teaching practice to dedicate more energy to building phatic communion above content delivery. This meant dedicating a significant amount of time to unstructured one-on-one break-out rooms for students to just chat before class began. Laura encouraged the use of the chat function (available on most platforms) as a way for students to chat using emojis and slang, not just a space for class content; she also made the decision to not visit break-out rooms while her students were in there, as this may disrupt their casual tones or directionless nature. This became especially necessary in her class for exchange and International Students as the stress of isolation from family and lockdown in a strange country coupled with disappointment in their exchange semesters being ruined rose to the fore. For International Students feelings of isolation in host institutions are well-documented in non-pandemic circumstances (Erichsen & Bolliger, 2011), while in those first weeks of the pandemic in Laura's class, students reported feelings of depression, anxiety and panic (see also Bathallath & Brahimi, 2021; Sakai et al., 2021; Kibbey et al., 2021). As discussed in Gabriella Karakas' section below, online spaces may not support and give adequate structure to peoples' psychological needs; however, in those first weeks of the pandemic, when phatic communion was prioritised and encouraged in online classrooms, they could offer a space of some joy and comfort.

Many corporate online platforms have sprung up since the onset of the SARS-CoV-2 pandemic that seek to answer the need for "hallway connections" or "water-cooler chat" (Woo et al., 2022). In 2022, Laura took part in a novel online facilitation seminar on a platform called 'Welo', where each person had an avatar that walked around an online board and could talk casually as their avatars physically passed each other. Certainly movement towards 'Metaverse' online collaboration, meetings and learning environments have sought to recreate some of these seemingly incidental, but in reality deeply important, interactions that Zoom/Collaborate Ultra did not enable well. As we continue to invest in online learning at universities, our focus on ensuring the learning outcomes of our courses/subjects should not occur at the expense of the other deeply important function of university as a place of becoming and being with other people. How such communion can and should occur today is complex terrain for universities that increasingly emphasise the importance of belonging (Quinn, 2005). It is Laura's view that continued development of best practice needs to include a focus on phatic communion in digital learning.

As a Counsellor

As a mental health counsellor and a lecturer in counselling, Gabriella Karakas has treated people across ages and has noted what a number of studies have also observed, that there is a correlation between digital technology engagement, especially social media use, and anxiety and/or depression (Banjanin et al., 2015; Karim et al., 2020). The World Health Organisation (WHO) has likewise observed a rise in reported mental health conditions worldwide, with a 13% increase between 2010 and 2020 (WHO, 2022). There is a mounting body of evidence positing that mental health conditions such as anxiety and depression are never monocausal and that technology and social media use is a significant contributing factor to these mental health conditions (Karim et al., 2020). Counsellors naturally seek ways of constructively interacting with clients to address their mental health difficulties. An effective therapeutic approach when working with such clients is relational cultural therapy

(RCT)—which recognises the necessity of 'Mutual-Growth-Fostering Relationships' (MGFR) in combatting loneliness and isolation stemming from social disconnection and isolation (Talbot, 2022).

RCT, which Gabriella practices, is born of the empirical understanding that irrespective of cultural background or health presentation, relationship is a critical component of wellness. Traditionally in Western industrialised nations, the 'healthy' self is considered mobile and free of the constrained bonds of community—achieving safety and wellbeing through competing with (and beating) others (Jordan, 2010). Contrasting with this, RCT is based on a model of counselling practice which places connection at the centre of growth, positing that the human condition is one of inevitable interdependence throughout all stages of the lifespan. This runs against the grain of the Eurocentric norms of many dominant counselling theories and also acknowledges that relationship is viewed from varied cultural lenses, many of which are coloured by collectivist values. RCT involves working with clients to identify and strive towards relationships that present opportunities for them to experience 'Mutually-Growth-Fostering Relationships' (MGFR) (Hartling, 2008).

MGFR are 'high-quality interpersonal connections' that are characterised by empathy, mutuality and empowerment. Thus, for connection to positively impact one's mental health, at least some of our relationships must go beyond the superficial and embody deeper levels of engagement, becoming more fulfilling and meaningful. MGFR directly addresses loneliness and isolation, which are the key predictors of poor psychological health (Hartling, 2008). However, since digital modes of connection catapulted into the mainstream towards the end of the twentieth century, there has been a noticeable shift in how individuals 'be together'. Now, connection with others globally is almost limitless, driven by globalisation and a bounty of free communication services available to anyone not on the wrong side of a digital divide (Lai & Widmar, 2021; Lythreatis et al., 2021). Digital modes of connection are often favoured above face-to-face interactions—with more people communicating online than offline (Lieberman & Schroeder, 2020).

The ease of connection, facilitated by the accessibility of digital modes of communication, would, one would imagine, result in a positive correlation between use and wellbeing. This is, unfortunately, not the case

(Twenge, 2017). Digital relationships are often lacking in the features that the concept of MGFR emphasises. People who spend more time in sedentary behaviours, such as social media use, have less time and will to engage with others face-to-face. Physical proximity, as well as connecting, has been shown to be protective against mental health disorders (Karim et al., 2020). Paul Booth comments on how digital mediums inhibit quality relationships central to positive mental health outcomes, writing that "Our interactions on social media are creating weak ties instead of deeper, more personal relationships" (Perry, 2017, p. 3). Our relationships are not strengthened as much by social media interactions as they are face-to-face. Indeed, online social connection inhibits elements such as body language and facial expression—some of the most important ways we communicate. It also allows individuals to curate their image, meaning connection can become superficial. Connection can also be strengthened through observation of how others interact with their friends, family and even people we incidentally engage with in daily activities, such as wait staff—something that cannot be replicated in a digital forum. As such, one can appreciate the bases of the positive correlation that has been found between an over-reliance on digital connectivity and reduced mental health, manifesting in anxiety and related disorders.

However, as is often the case, nothing can be truly simplified as 'good' or 'bad'. Anecdotally, students, colleagues, clients and friends alike made comments to Gabriella about the positive impacts of digitally facilitated social connection on their wellbeing and feelings of anxiety, a theme explored below. Similar findings were reported by Niner and Wassermann (2021), who noted that events moving online substantially increased the accessibility of a social interaction for those who would be unable to attend in-person for financial reasons. Likewise, digital platforms lent themselves to being more geographically inclusive and reduced feelings of isolation among those who lived rurally. Wellbeing can be further facilitated through digital social platforms by helping create new communities along lines of common interest, as discussed in this volume's introduction, allowing membership to worthwhile political and social movements, and invigorating some through acts of digital altruism and digital support of social movements. Participating in social justice causes, which

are increasingly undertaken via online forums, has been shown to reduce anxiety and self-preoccupation, and lends itself to enhanced meaning and personal purpose (Post, 2005).

Considering the above, it is apparent that digital inter-action has more than one straightforward effect on wellbeing and mental health presentations—pulling towards feelings of engagement and fulfilment or anxiety and disconnection. So how does one navigate such a precarious space? Traditional anxiety reduction methods include adopting a healthy lifestyle through eating well, going into nature and participating in activities that keep one in the present moment (Aked et al., 2008). Clinicians that subscribe to RCT models of wellbeing suggest clinical engagement with 'person-centered therapists' (who favour humanistic approaches that deal with the ways in which individuals perceive themselves consciously, rather than how counsellors can interpret their unconscious thoughts or ideas), allowing therapists to model positive relationships with the client which they can emulate in external settings to create MGFR. If digital interaction is managed well, it can also enrich wellbeing and connect those geographically dispersed. Irrespective of the individual's demographic or cultural profile, connection and the presence of at least some relationships with deep connections facilitated by mutuality are foundational to wellbeing.

On Email

In a relatively short space of time, our prevailing societal perception of email has changed dramatically. Under the weight of the unread messages accumulating in our inboxes, it is easy to forget that as recently as the early 2000s, when email became accessible on mobile devices such as the BlackBerry, electronic mail was still touted for its capacity to instantaneously transmit information between multiple parties, traversing geography, economies and other boundaries between human beings, at next to no cost. Speaking in 2009, the founder of Gmail, computer engineer Paul Buchheit, went so far as to argue that given these attributes, email would live forever or, at least, until such a time as when there was an Artificial Intelligence (AI) takeover: "Email is not going to disappear.

Possibly ever. Until the robots kill us all" (Siegler, 2009). Yet, in contemporary discourse on the subject, the revolutionary potential of email to change the world for the better—well-documented at the time of its inception in the 1970s and 1980s (e.g. Free, [1980] 2016)—barely rates a whisper, much less a mention. It would come as little surprise to the reader that in the growing body of more recent musings on the implications of email for our ways of being, it is the negative and regrettable that are brought most sharply into focus.

The primary context of concern in much of the contemporary discussion on email is workplaces. Scholars, journalists and social commentators alike are interested in and, indeed, concerned about the effects of email on the ways we work and on the psychological welfare of workers (e.g. Glei, 2016; Newport, 2021; Thomas, 2021). And for good reason; there is a wealth of evidence from the last decade which not only verifies but quantifies the extent to which email has come to dominate our working lives with demonstrably adverse effects on employee wellbeing, in particular for 'office' (whatever form that might take) workers or those employed in 'knowledge economies'. A 2019 study by software company Adobe surveyed more than one thousand American workers and found that participants spent an average of 209 minutes (or more than three hours) per day checking their work emails (Adobe, 2019, slide 2). Addressing an overlapping period of time, the market research group Radicati (2015) estimates in its 2015–2019 report on global 'email statistics' that in 2019, workers were sending and receiving approximately 126 work-related emails each day. As Cal Newport notes in his book *A World Without Email* (2021, p. xvi), these data indicate that an employee sends or receives an email message every four minutes.

The growing advice literature on how to 'fix' our problem with email draws on findings such as those outlined above, to highlight a further issue of email anxiety or overload amongst knowledge workers, which is corroborated by extensive academic research on the topic. As summarised by Kim McMurtry (2014, p. 32), research has documented the correlation between email volume as a predictor of email stress in employees (also see Jerejian et al., 2013), as well as the psychological distress workers experience to quickly respond to messages, which can lead to some feeling 'enslaved to email'. The literature identifies feelings of isolation and

loss control, longer working days, addiction, fragmented workflows and loss of productivity as additional negative effects that result from our current ways of engaging in email communication (see McMurtry, 2014, pp. 31–32).

The summation of what all this means is perhaps best captured in Newport's text (2021). In *A World Without Email*, Newport (2021, p. xvii) describes the effects of email on the modern worker in terms of the way unstructured digital communication tools, like email, have given rise to what he terms a 'hyperactive hive mind' workflow. The latter refers to work practices that are fragmented and filled with distraction due to their centring of 'unscheduled' or haphazard messaging systems, such as email, which constantly interrupt workers and prevent them from engaging in the 'deep thinking' required in knowledge economies. Newport makes the case that the pre-eminence of email as the cornerstone of how we do work is a 'disaster' in at least two respects: it reduces our productivity and therefore the profitability of the organisations for which we work; and it is making us miserable, as evidenced by the various forms of psychological hardship to which email contributes, if not causes, as noted above. Almost diametrically opposed to Buchheit's vision of email existing until the robots take over, Newport asks us to imagine a world, if not without email, then one in which it features far less prominently in our working lives.

As a knowledge worker with a typically unhealthy relationship to her inbox, Kaye has both experienced and reflected at length on the inefficiencies and psychological distress that email can yield. And while she finds herself principally in agreement with the arguments presented by writers such as Newport, she also finds herself ruminating on the extent to which these analyses capture the fullness of our inter-existence as it is mediated via the digital platform of email. The backdrop for these musings, ironically, has been the state of Kaye's inbox during the pandemic. The element of irony comes from the broader context of 'digital overload' that the pandemic produced for knowledge workers (Kaye included), where staff in these industries reported heightened levels of digital burnout or weariness as a result of moving communication channels away from physical interactions to online (Kokshagina, 2021).

For Kaye, like many of her colleagues, the pandemic-induced shift online created a palpable surge in email volume. In its initial stages, this

was primarily from students who sought to replicate via email the end-of-class one-on-one (usually brief) conversations with their lecturer, usually about the finer details of an assessment task, or the content of a set class reading or lecture presentation. As the early weeks of the pandemic lockdown rolled into months and then, regrettably, in Melbourne, into years, there were additionally higher-than-before numbers of emails from students communicating the poor state of their own mental health, and in one case, an implication of a student experiencing gendered violence. These and other examples reflected pre-existing social problems that were heightened during the pandemic (e.g. see Li et al., 2021; Mittal & Singh, 2020).

It is likely that responding to these queries and revelations face-to-face with students would have resulted in a net positive experience for all concerned when compared to email; being able to convey affect and empathy via non-verbal cues, and having the capacity to read a student's body language and response to her suggestions, would undoubtedly have aided Kaye in the important aspect of her work to offer support and attentiveness to students. And yet, on more than one occasion, she found herself grateful for the asynchronous nature of email, as a mode of exchange, which afforded her time before responding to consider what might be most appropriate to say, or to seek guidance on how best to respond, rather than being put on the spot. The archival qualities of email, which maintain a record of what was said, were also frequently positive characteristics of the medium in these instances, allowing Kaye to clarify in her own mind what a student had actually said instead of relying on her memory of a spoken conversation and to review the suitability of her responses at a later time, especially for the more troubling queries. She wondered, too, whether these same qualities of email might be useful to the students; email can act as a reference point, accessible and on record, to come back to when working through their particular concern.

None of this is to suggest that our current ways of working with email are superior to more corporeal exchanges in circumstances such as these, nor is it to downplay the considerable work-based and societal problems (such as psychological stress) that email creates. Rather, it is to note that what email offers is different from in-person communication and not, consequentially, necessarily absent of value, especially when contemplating how our interactions with one another are mediated by the digital.

Works such as *A World Without Email* (Newport, 2021) ask critically important questions about what email does to us as *workers*, but perhaps do not ask the same of what it does to us as *people*, where a prosocial outlook (LSE, 2020) may blur any distinction between how the two inform our exchanges (digital or otherwise), accordingly. The question that remains is how, when rewriting our relationship with email, we might retain and centre the aspects of this form of digital communication that can positively favour and construct our modes of inter-being.

Algorithms

There is no doubt that the modes of our inter-being should be positively constructed and mediated, but we often do not realise the ways in which, and the extents to which, that construction is mediated by algorithms. One of the areas in which this is most obvious is in social media, where algorithms determine what we see most prominently when we check our feed. Many people assume that what they see is simply a chronological and disinterested stream of what was posted by our connections. However, that is far from the case. Cathy O'Neil has pointed out in *Weapons of Math Destruction* (2016) that the news and information we see has always been mediated by editors who choose what stories to cover and in what light. However, she argues, those editorial decisions are "clear, on the record. It is not opaque". Facebook however and for example, is different.

> Facebook is more like the Wizard of Oz: we do not see the human beings involved. When we visit the site, we scroll through updates from our friends. The machine appears to be only a neutral go-between. Many people still believe it is. (2016, p. 153)

As social media is a foremost means by which we interact digitally, these algorithms impact our engagement with each other, as our attention is pointed towards certain kinds of posts at the expense of others. Julian remembers his surprise some years ago at clicking a Facebook friend's profile and seeing that they had posted messages, but none had appeared in Julian's feed. Why that would have been is owing to the impact of algorithms of which he was unaware. These algorithms, which

run unseen, have been shown to be able to alter the moods of users. In Facebook's own experiments some users were shown more upbeat posts and others shown more negative posts, with those having seen the more negative posts going on to produce more negative posts themselves, and vice versa (O'Neil, 2016, p. 153; see also Flick, 2016).

Thoughtful engagement with social media requires an awareness of the motivations and the values of the platforms we use. The biggest platforms are of course for-profit (Fuchs, 2014, pp. 97–122) and seek to increase shareholder value and therefore to encourage behaviour that supports their revenue, which in this case is our interactions with each other and the capture of our attention. The methods used mirror those used to promote problematic gambling habits (Busby, 2018). At play are "variable reinforcement schedules", which is to say that "Social media sites are 'chock-a-block' with unpredictable rewards. Habitual social media users", writes Mark Griffiths in an article about adolescent use of social media, "never know if their next message or notification will be the one that makes make them feel really good. In short, random rewards keep individuals responding for longer" (Griffiths, 2018, p. 66).

David Sumpter has made a similar observation with YouTube and its efforts to keep users engaged with YouTube for longer lengths of time. In *The Ten Equations that Rule the World* (2022) he writes that "Around about the time of South Korean megahit Gangnam Style, YouTube had a problem. It was 2012 and although hundreds of millions of us clicked on videos and visited the site, we weren't staying there". However, YouTube developed software to improve the videos it recommended to a viewer based on their prior searches. Sumpter notes that YouTube's success "was astounding. In 2015, the time 18 to 49-year-olds spent watching YouTube increased by 74 per cent. By 2019, it had 20 times as many views as it did before the Google researchers started their project" (2022).

A foremost insight that all users need to realise is that social media platforms are not built on a neutral substrate (see also Harkaway, 2012, p. 244). Sumpter concludes from his research that "if you believe that you are exploring *your own* interests on YouTube, but find yourself clicking on the suggested videos, then you are sadly misguided" (ibid.; emphasis added). The assumption of neutrality extends to perceptions of fairness too. Algorithms are routinely secret and proprietary and not available for

scrutiny even by those who believe themselves to have been unfairly treated by an algorithm, whether it is the field of employment or criminal justice. This is a common mistake that people make, according to O'Neil, "that they think that because something is mathematical, because it is an algorithm, it is inherently more fair than some kind of human process [but] there's absolutely no reason to think that algorithms are inherently fair" (in Stachowiak, 2017). To the contrary, "Algorithms don't make things fair. They embed historical practices and patterns" (O'Neil, 2017; see also Noble, 2018).

None of this is to say that algorithms ought to be (or even could be) abandoned or that more purely human processes will lead to less biased or fairer outcomes. It is to say that we should not take the digital spaces of our interaction for granted and believe that social media platforms reflect in an undistorted way the world and people's lives and thoughts beyond the screen. The offline world is also not a neutral space that equally welcomes and accommodates people regardless of their gender, ethnicity, socio-economic status and other characteristics. What is much needed is far greater awareness of the ways in which social media companies manipulate users' behaviour in the companies' self-interest. What is also much needed is greater transparency and accountability by the creators and owners of algorithms so that the social harms they cause can be mitigated (O'Neil, 2017).

Our vigilance of the automatic and digital world is of great importance and will be increasingly so. As described by Tim Harford in *Messy* (2016), the increased use of automation—such as in the area of piloting aircraft—is because of the much-improved robustness and reliability of the algorithms guiding auto-pilot. However, as much more of the work is given over to automation, we become less practised and less able to respond when an exceptional circumstance arises that the algorithm cannot handle. This is the "paradox of automation", writes Harford, "The better the automatic systems, the more out-of-practice human operators will be, and the more unusual will be the situations they face" (Harford, 2016, pp. 195–196). Such lack of practice can have dire consequences, ranging from aircraft pilots who are unable to fly a plane adequately in an emergency situation to "the operators of a nuclear power station to the crew of a cruise ship", writes Harford (2016, p. 196). Like other critics of

the ways in which automation has been deployed, Harford does not advocate for the "death of databases and algorithms", but rather, they, writes Harford, "like the autopilot, should be there to support human decision-making. If we rely on computers completely, disaster awaits" (2016, p. 205).

Given the ubiquity and global reach of certain algorithms and platforms, and their instantaneity, the power that social media algorithms wield should inspire awe and concern. Politically, observing the impact of Facebook's algorithms on voting behaviour in the US, O'Neil asserts that "The activity of a single Facebook algorithm on Election Day, it's clear, could not only change the balance of Congress but also decide the presidency" (2016). And societally, there is cause for concern with rates of anxiety and depression rising in young people after the introduction of smartphones and tablets. Researcher Jean M. Twenge argues that "the twin rise of the smartphone and social media has caused an earthquake of a magnitude we've not seen in a very long time, if ever. There is compelling evidence that the devices we've placed in young people's hands are having profound effects on their lives—and making them seriously unhappy" (2017). As has been widely noted, people spend considerable amounts of time on their devices, often engaging with other people, often on social media, and thus, digital technology is evidently shaping the ways we be with each other in far-reaching, systematic and global ways. As with email, we need to consider the ways it impacts us and society, with a view to addressing those impacts that are frequently regarded as regrettable (Twenge, 2018; Greenfield, 2015), while appreciating and meeting the needs it seems to serve, as indicated by its widespread use.

On Social Media

Social media played an undeniable role in people's lives during the pandemic, and here Anna engages particularly with Julian's observations regarding unease around notions of 'helping the world' through the exploration of a range of relevant initiatives that emerged from social media during lockdowns associated with the SARS-CoV-2 pandemic. The initiatives can be usefully contextualised within Marzouki, Aldossari

and Veltri's understanding of social media as a "placeholder for collective resilient processes modulated by cognitive and emotional components" (2021). Their study on the potential of social media to mitigate anxiety during the pandemic explores how social media may have a role in strengthening social connections during times of hardship and serve a 'buffering' function against trauma and threat. Of particular interest for this discussion is their claim that "buffering mechanisms are the result of a positive perception towards the stressors which is promoted by resilience" (2021).

All three initiatives to be considered here emerged in March of 2020. The first was the sequence of evenings during which members of the British public stood out on their doorsteps and balconies to clap, cheer and bang pots and pans in support of England's National Health System, after hashtags such as *#clapforNHS* were circulated on social media (Mohdin, 2020). These were soon followed by videos captured on smartphones in which few humans were visible in the half-light, but in which the presence of many was made evident by the rising cacophony. The second example was the singing and playing of musical instruments that took place on and across balconies in Italy during lockdowns, filmed on smartphones and shared all over the world. The third was an endeavour local to Melbourne, the city from which the authors of this chapter write, featuring a call-out on social media to place rainbows and teddy bears in windows that would be visible from the streets, with a view to contributing to children's enjoyment of the single hour of exercise permitted during the strictest part of our lockdown. During that time, in which so much socialising took place online and local travel was no more possible than international, the line between local and global felt particularly blurry. Anna found her social media feeds filled with calls to participate, as well as celebrations of participation, in all three endeavours.

Some of the appeal of this array of widely shared initiatives, and many others like them, probably lay in their attempt to engage with the desire for human connectedness during circumstances experienced by many as profoundly isolating. In one sense, the initiatives are further examples of the replacements for physically proximal inter-existence to which Julian has referred. Yet although they were reliant on the digital world to develop and gain traction, each featured the assertion and communication of a

distinctly embodied physical presence, demonstrated through the clattering of pots and pans, the raising of voices and musical instruments, and the careful attendance to windows visible to exercising bodies on streets. Although physical proximity differed from an embodied mode of togetherness in the ordinary sense, each initiative sought ways to create an experience of solidarity and communion that was deeply corporeal in nature. In his writing on solitude, psychoanalyst Anthony Storr notes that "In the course of daily life, we habitually encounter many people with whom we are not intimate, but who nevertheless contribute to our sense of self" (1997, p. 13). Perhaps it was these incidental people, in just the role Storr identifies, whose physical presence we sensed and valued through these distinctive initiatives.

The embodied, non-digital 'feel' of the pseudo-gatherings may have been bolstered further by the simplicity of the make-do approach involved, centred firmly in the everyday and domestic—pots, pans, children's toys, guitars, folk songs. These rustic, wholesome touch points felt especially welcome to Anna during a time that newly featured masked faces, movements tracked through QR code check-ins, helicopters circling overhead during night-time curfews and a temperature gun pointed at her head as a condition to entry to her local chemist. But the cosy elements of the initiatives were of course only some of the tools and resources required. Others had the potential to complicate comforting feelings of going 'back to basics' in a challenging time—the modems, smart phones, cameras, hashtags and algorithms that enabled invitations to circulate locally and heart-warming footage to be captured, shared and appreciated across international borders.

Dangers associated with technology and particularly the internet include general fears of increasing monitoring and surveillance, as well as fears of being scammed, hacked or impersonated. But a range of more socially based fears is worth considering too. An uneasy pattern is familiar to many social media users by which the sentiment, link or hashtag shared widely yesterday is revealed today as bogus, ill-informed or otherwise problematic, sometimes in ways that bring the morality and even the basic decency of sharers into question. 'Feel-good' initiatives run a particular gauntlet of often well-justified critiques. They can be shown to have encouraged politically convenient behaviours and attitudes where

resistance and disruption would have been more appropriate; failed to be underpinned by sound research; masked corporate interests; distracted from real issues and problems; lacked awareness of those whom they sidelined, excluded or even harmed; and caused problems that outweigh any benefit they offer. For those sensitive to this cycle, the emergence of a new feel-good endeavour might be imbued with a feeling of waiting for the other shoe to drop—and the more tender the initial pull of the sentiment, the louder the clatter will be. Social critic Barbara Ehrenreich observes that "we tend to think that tyrants rule through fear—fear of the secret police, of torture, detention, the gulag—but some of the world's most mercilessly authoritarian regimes have also demanded constant optimism and cheer from their subjects" (2009, p. 201). In this, she highlights some of the special unease that might be reserved for 'feel-good' endeavours.

Where there is an element of nostalgia or sentimentality (easily perceptible among teddy bears, saucepans and folksongs) another range of concerns might follow. Nostalgia is often regarded as a red flag for spurious and potentially dangerous thinking and remembering (Lowenthal, 1989). Among other critics, British historian Richard Overy provides a strong critique of the highly relevant notion of the 'blitz spirit' and of its use to promote a cheerful, stoic approach to the pandemic. It has been employed in this way, both directly and indirectly, by British politicians, journalists and the Queen of England. The notion draws on an idealised imagining of the attitude of the British public throughout repeated bombings during the Second World War, loosely defined by Overy (2020) as "resilience in the face of unexpected adversity, sustaining a common bond between citizens facing a shared threat and remaining calm or cheerful despite calamity". The idea is often illustrated with photographs of people emerging smiling from the wreckage of their homes with arms full of salvaged goods and, perhaps most iconically, a cheerful-looking milkman stepping through the rubble to ensure his daily delivery goes uninterrupted (an image that is, Overy notes, now understood to have been staged). He goes on to query the veracity of the blitz spirit more broadly, highlighting the profound fear, grief and trauma that went untreated and unreported in favour of stories of British courage, stoicism and good cheer. He warns of the same kind of error being repeated wherever the spurious idea is evoked.

Anna's own reticence about participating in world-saving (or at least world-cheering) initiatives connects with these critiques but was more akin to a dull unease than any incisive analysis. A mode of wariness around 'helping' initiatives has been identified above by Julian as a reluctance to appear 'bombastic or hopelessly naive'. He specifies an academic context, but much the same unease can be felt in social media spaces such as Instagram and Facebook, in which a different mode of 'peer review' is in constant operation. On these platforms the views of the individual, whether expressed via an original composition or an endorsement through a shared meme or a hashtag, is placed on a kind of record and made subject to approval, disapproval, and feedback from friends, colleagues and strangers. Mere anticipation of being called bombastic, naïve, insensitive or outright harmful is a powerful force for self-censorship.

Returning to Bregman's comments regarding a proactively and radically prosocial response to the coronavirus, Julian points specifically to a widespread willingness to adapt to inter-being and inter-est. On matters of social distancing, handwashing and mask wearing, Anna easily found her place among the 'billions' Bregman commended for their cooperation in his proposed headline. She also painted a rainbow on the glass on her balcony, put a teddy bear in her most visible window, enjoyed private messages with friends sharing phone footage from their doorsteps and balconies, and video called and wrote letters to family members, just as the Wiggles recommended. But perhaps lacking the very resilience the world of social media might have provided according to Marzouki, Aldossari and Veltri, she found herself participating very little in the more public-facing social media-based examples of inter-est initiatives considered in this discussion.

By Way of Conclusion

Society is often spoken about in metaphors that draw our attention to the interwoven nature of social relations. We often speak in terms of the fabric of society. Such fabric is made through acts and moments of weaving, such as occasions of phatic communion among students. Loose threads and rips in the fabric might be mended with the help of good counsellors.

We also attempt to prevent tears in the fabric and create safety nets that are intended to catch people on their way down, and which hopefully are well designed and robust enough to be supportive and restorative.

The word net has connotations that are both positive (safety net) and negative (trapped in a net). Both positive and negative connotations also inhere in the 'internet'. The negatives are increasingly well-known and discussed, while access to the net is also regarded by some as a human right (see Mathiesen, 2012); the internet enables many aspirations and is clearly servicing human needs for contact and engagement. The ubiquity of email and smart phones today for many people can lead us to easily forget how new this all is and how new our relationships with these technologies are. Because of their ubiquity and power, it is important for us all to consciously consider, discuss and reflect upon these technologies and our relationships with them.

These relationships can sometimes be thought of in binary terms. The technology is to be embraced or rejected; it is harmful or enabling; we should be online or offline. However, a web both traps and connects. Like a spider's silk, the threads of the web are both weak and easily broken apart, and have plenty of strength (spider silk is stronger than steel, we are often told). We each of us will have different attitudes and relationships at different times with technologies, and these may well be straightforward. We might believe that for either us as individuals or society in general, certain technologies, programmes or algorithms are clearly harmful or inadequate. Navigating the issues with our digital world requires discussion, debate and research, and it is through these that we can promote better design and relationships. As Nick Harkaway writes, "When we're structuring our technologies—and the systems that support them and from them—we have to choose, over and over again, the path that emphasizes the society we want" (2012, p. 200).

The authors in this volume—*The Digital Global Condition*—have sought to participate in these debates and discussions around various aspects of the digital elements of our world. The approach of this chapter has been to frame these discussions not so much around our relationships with digital technology but around our relationships with each other as they are mediated by evolving digital technologies. We have seen that these technologies are global substrates that are not neutral. Just as we

should pay attention to the food we consume so that we tailor our diet to our specific individual needs—with, for example, apples and cookies eaten in appropriate proportions—so too with our consumption of digital technology. Many people around the world spend large portions of their waking lives in digital communion with others in one way or another, and consideration of how we do this, and how we might best do this, will continue to be fundamental to our personal and collective wellbeing.

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